DOCUMENT RESUME

ED 376 222 UD 029 750

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TITLE	Equity in the Funding of Public Elementary and Middle Schools in New York City. Part II. School and Community School District Budgets and Expenditures in New York City.
INSTITUTION	Educational Priorities Panel, New York, N.Y.
SPONS AGENCY	Aaron Diamond Foundation, Inc., New York, NY.; Andrew W. Mellon Foundation, New York, N.Y.
PUB DATE	Oct 93
NOTE	239p.; For Part I, see UD 029 749. Separately published 6-page summary appended to both parts.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC10 Plus Postage.
DESCRIPTORS	Accountability; Budgeting; Centralization; Comparative Analysis; *Educational Equity (Finance); Elementary Education; *Equal Education; *Equalization Aid; Expenditures; Finance Reform; *Financial Support; Public Schools; Resource Allocation; School District Wealth; Teacher Salaries; *Urban Schools
IDENTIFIERS	Educational Priorities Panel NY; *New York (New York)

ABSTRACT

The Educational Priorities Panel undertook a study to find out how funds are distributed among community school districts in New York (New York) and how resources are distributed to individual schools within the system. For the first time, in 1992, the New York City Board of Education published detailed budgets for the 32 community school districts and the elementary and middle (or junior high) schools within these districts. This report is Part II of the findings of the study by the Educational Priorities Panel; it presents the first systematic analysis of these district and school budgets and of selected expenditure data. Community school district budgets are analyzed by examining general-education budgets, general-education positions, reimbursable-program budgets, and general-education plus reimbursable-program budgets. In elementary schools, per-pupil budgets and expenditures are somewhat lower in high-poverty versus low-poverty districts and schools. In middle schools, the reverse is true. Total reimbursable funds for general-education pupils are higher in higher-poverty districts, but only Federal entitlement funds show higher spending per eligible pupil in higher-poverty schools. Details of district- and school-level budgets and expenditures for general education and reimbursable programs are presented in 101 tables accompanying part II. (SLD)

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EQUITY IN THE FUNDING OF PUBLIC ELEMENTARY AND MIDDLE SCHOOLS IN NEW YORK CITY

PART II

SCHOOL AND COMMUNITY SCHOOL DISTRICT BUDGETS AND EXPENDITURES IN NEW YORK CITY

Educational
Priorities
Panel

October 1993

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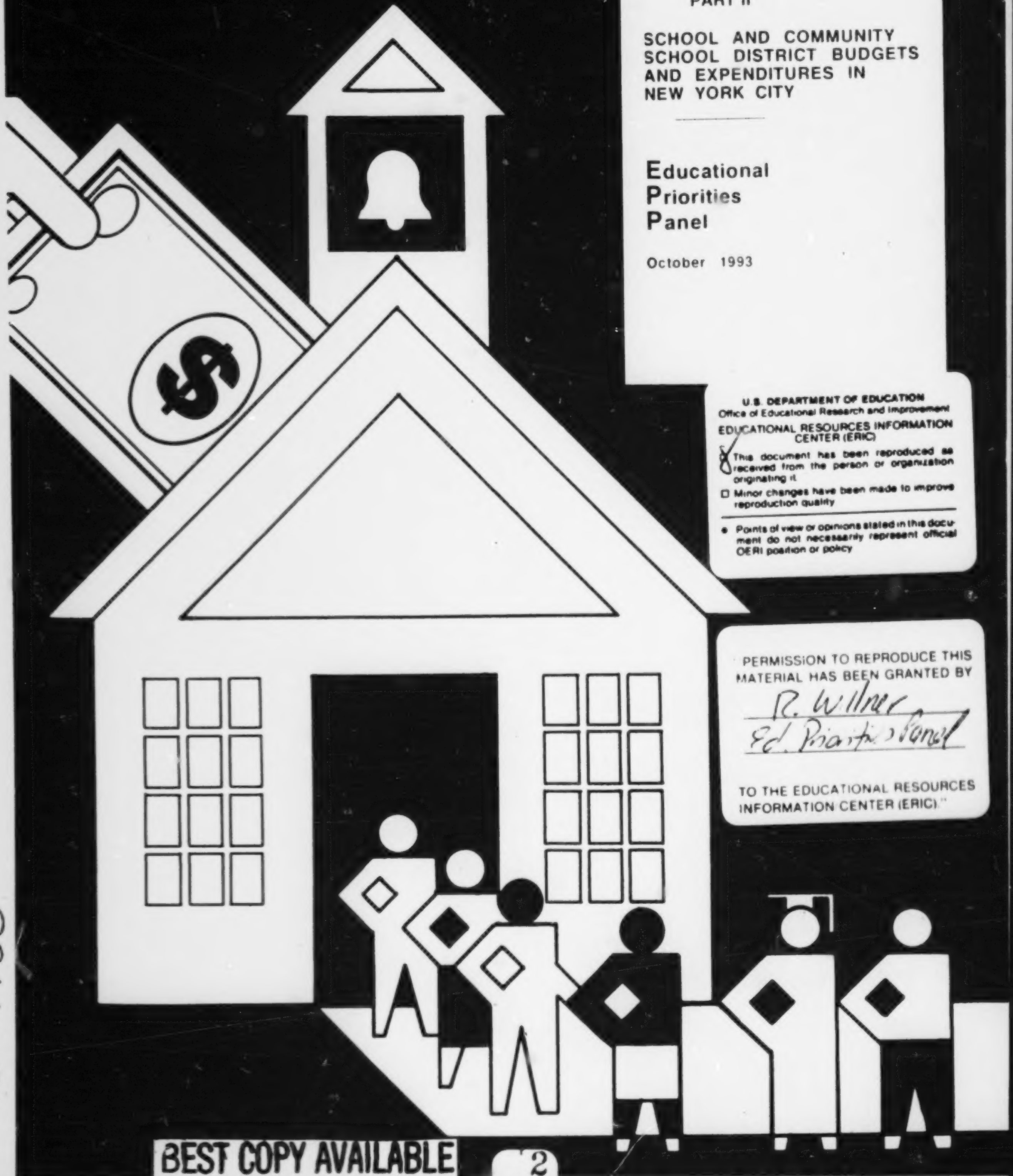

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**Research funded by
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SCHOOL AND COMMUNITY SCHOOL DISTRICT BUDGETS AND EXPENDITURES IN NEW YORK CITY

A Report Prepared for the Education Priorities Panel[1]

Robert Berne and Leanna Stiefel

Robert F. Wagner Graduate School of Public Service
New York University

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[1] Funding for this research was provided by a grant to the Education Priorities Panel by the Aaron Diamond Foundation and by the Andrew W. Mellon Foundation.

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SUMMARY OF FINDINGS

SCHOOL AND COMMUNITY SCHOOL DISTRICT BUDGETS AND EXPENDITURES IN NEW YORK CITY

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September 1993

For the first time, in spring of 1992, the New York City Board of Education published detailed budgets for the 32 community school districts and the elementary and middle/junior high schools within those districts. This report presents the first systematic analysis of these district and school budgets, and selected expenditure data, which subsequently became available in December 1992.

The district budgets and school budgets (also known as spending plans) are divided into three separate funding categories: general education, reimbursable programs, and special education programs. In this report we examine the first two categories; however, special education budgets are not analyzed because of data limitations. In addition to the budgets at the district and school levels and expenditures, all of which are measured in dollars, data are available on the number of budgeted positions in the general education and reimbursable program categories. This summary presents the major findings from the analysis but should not be viewed as a substitute for the details presented in the report. Before discussing the analysis, we comment briefly on the quality of the data.

MAJOR DATA LIMITATIONS

The report presents an analysis of the data and its limitations. Four important points need to be understood as background to the analyses and to improve the usefulness of data in the future.

- In the budget information, individual teachers' salaries within each district are reported as average district teachers' salaries in the general education category. In the future, actual individual teachers' salaries by school should be used in the general education budget.
- Split positions (personnel who work in more than one school) are common, but the current budget system does not permit positions to be reported in more than one school. To avoid this problem in the future, the district and school budget system should be modified to permit the accurate reporting of split positions.
- In the future, to improve the match between resources and pupil needs, different pupil counts may be needed for different types of reimbursable programs and for special education.
- Per pupil budgets and expenditures at the school level need to be verified more carefully to insure that outlier values are valid fiscal measures for all schools.

ANALYSIS OF COMMUNITY SCHOOL DISTRICT AND SCHOOL BUDGET DATA

Community school district budgets are analyzed by examining general education budgets, general education positions, reimbursable program budgets, and finally general education plus reimbursable program budgets. All analyses are carried out for all 32 school districts (district-level), and general education budgets and general education positions are carried out for all schools (school-level).

A. General Education Budgets: District-Level Analysis

1. Overall District Budgets

- In the analysis, the general education budget is divided into three groupings: school allocations, district office, and unallocated. Just over 91 percent of the total district general education budget is allocated to the schools within the district. Average district-level per pupil school allocation is $2,327. The per pupil district office budgets and the unallocated amounts are roughly the same size, $114 and $110, respectively.

- There are substantial disparities in the districts in their allocations to the district office and the unallocated amounts. The disparity in the district level school allocations is relatively small.

- For per pupil district budgets, there is a relatively small and weak positive relationship between district budgets per pupil and poverty. That is, districts with higher poverty have higher per pupil district budgets. We use regression analysis to estimate the difference between a high poverty district (80 percent poverty) and a low poverty district (30 percent poverty). In this case the per pupil district budget in the high poverty district is $24 higher than in a low poverty district.

- The weak positive relationship between total per pupil district budgets and poverty is composed of (1) a negative relationship between per pupil school allocations and poverty, offset by (2) positive relationships between per pupil district office budgets and poverty, and between per pupil unallocated amounts and poverty.

2. School Allocations at the District-Level

District-level school allocations are examined in two ways: i) as either "direct" education or "indirect" education and ii) as budgets for aggregate salaries for teachers. Direct education are those budgeted items that are directly involved in the education process. Indirect budgets include administration, principals, assistant principals, community relations, extended use, school guards, school aides, and secretaries.

- On average, the per pupil direct school allocations are 86.5 percent of the total school allocations across the districts. The per pupil means are $2,012 for direct and $314 for indirect.

- The disparity in the per pupil indirect allocations is higher than for the direct allocation, where the disparity is relatively small.

- Districts do not appear to be budgeting for indirect at the expense of direct.

- There is a negative relationship between per pupil school allocations and poverty and that relationship is composed of a stronger negative relationship between direct allocations and poverty, and a positive relationship between indirect allocations and poverty.

- Consistent with the findings from the direct, indirect, and total school allocations, aggregate per pupil teachers' salary budgets, both school allocations and district totals, are negatively related to poverty. For example in a high poverty district (80 percent poverty) per pupil aggregate teachers' salaries are $75 lower than in a low poverty (30 percent poverty) district.

- One reason for the lower budgets for per pupil school allocations, direct allocations, and aggregate teachers' salaries in the high poverty districts is the lower levels of average individual teachers' salaries in the high poverty districts. A second reason is the higher levels of per pupil unallocated budgets in the poorer districts.

3. School Allocations at the District-Level for Elementary Schools and Middle/Junior High Schools

- General education per pupil district-level school allocations for direct and indirect allocations, allocations for teachers, and total school allocations are examined separately for elementary schools and middle/junior high schools. The per pupil variables for the middle/junior high schools are consistently higher than for the elementary schools. For example, the mean per pupil total school allocation per pupil is $2,212 and $2,624 for elementary schools and middle/junior high schools, respectively.

- Relationships between per pupil resource variables and poverty are different for elementary schools compared to middle/junior high schools. In elementary schools, the per pupil direct, aggregate teachers' salaries, and total school allocations are lower for the high poverty districts, although the opposite relationship holds for indirect allocations. In the middle/junior high schools, the relationship is the same for all four variables: higher per pupil direct, indirect, aggregate teachers' salaries and total school allocations in the poorer districts. For example, in elementary schools, per pupil total school allocations are $98 lower in high poverty districts compared to low poverty districts, while in middle/junior high schools, per pupil total school allocations are $217 higher in high poverty districts compared to low poverty districts.

B. General Education Budgets: School-Level Analysis

It is important to keep in mind that some schools have been eliminated from the school-level analysis due to data problems. We believe that these problems will not alter the conclusions for the City as a whole, although the data problems (as well as the use of average individual teachers' salaries) prevent us from analyzing the distribution of resources within districts.

- For elementary schools, the mean per pupil total school allocation is $2,206, but the disparity is larger computed at the school level compared to the district level.

- Compared to elementary schools, per pupil school allocations in middle/junior high schools are higher, ($2,631 versus $2,206), although the disparity in middle/junior high schools is somewhat less.

- For elementary schools, there is a relatively small and weak negative relationship between per pupil school allocations and poverty; the negative relationship between per pupil aggregate teachers' salaries and poverty is slightly larger and stronger than the relationship with per pupil school allocations, but still relatively small with a $31 difference between high and low poverty schools for per pupil aggregate teachers' salaries.
- Among middle/junior high schools, for both per pupil school allocations and per pupil aggregate teachers' salaries, there is a relatively large and strong positive relationship with poverty. For example, in high poverty middle/junior high schools, per pupil school allocations are $175 higher than in low poverty schools.
- There is a strong negative relationship between average individual teachers' salaries and poverty for both elementary and middle/junior high schools, which is consistent with the findings from the district level analysis.

C. General Education Position Analysis: District-Level Analysis

General education positions include teachers, principals, assistant principals, community relations, counseling, other pedagogues, paid leaves, administrators, and secretaries. In the report, the per pupil position variable is analyzed as pupils per position. Note that higher values of pupils per positions signify fewer resources.

1. Overall General Education Positions

- The major finding is that for all position variables there are fewer pupils per position in the higher poverty districts. For example, for total general education pupils per position, there are 17.88 pupils per position in the high poverty districts (80 percent poverty) and 18.74 pupils per position in the low (30 percent poverty) poverty district. The comparable figures for general education teaching positions is 21.21 pupils per teacher in the high poverty district and 22.25 pupils per teacher in the low poverty district. Thus, unlike budgets at the district level, there are more general education positions per pupil in the poorer districts.

2. School Allocations at the District-Level for Elementary Schools and Middle/Junior High Schools

- In elementary schools, there are more pupils per position compared to the middle/junior high schools, which is consistent with the higher budget levels found in the previous analysis. For example, there are 23.22 pupils per total general education position in the elementary schools, and 18.56 pupils per position in the middle/junior high schools. Similar differences hold for teaching positions.

- In the elementary schools, there are no strong relationships between pupils per position and poverty. There are weak positive relationships between per pupil direct positions and teaching positions and poverty, and weak negative relationships between per pupil total positions and indirect positions and poverty. For example, for per pupil total positions, there are 23.25 pupils per position in the high (80 percent) poverty district and 23.15 pupils per position in the low (30 percent) poverty district, an inconsequential difference.

- For middle/junior high schools the difference across poverty variations are more consequential. There are relatively large and strong negative relationships between all definitions of pupils per position and poverty including total, direct, indirect, and teaching positions. For example, for per pupil total positions, there are 15.49 pupils per position in the high (80 percent) poverty district and 17.59 pupils per position in the low (30 percent) poverty district. The difference for teaching positions is even larger, 17.90 pupils per position in the high poverty district compared to 20.66 pupils per position in the low poverty district. This confirms the findings from the budgetary analysis that resource allocation is more strongly related to poverty in the middle/junior high schools where poorer schools receive greater resources, than in the elementary schools where there is a weak or no relationship with poverty.

D. General Education Position Analysis: School-Level Analysis

- The findings from the school level analysis of positions are consistent with the results from the district level analysis.
- For example, for the elementary schools, there is a small, weak and negative relationship between pupils per position and poverty.
- For middle/junior high schools, the relationship between per pupil position variables and poverty is large, moderately

strong and negative.

E. Reimbursable Education Budgets

Reimbursable program budgets are analyzed on the basis of both general education pupils and eligible pupils, where the latter is based on output performance measures. Reimbursable programs include Federal and State entitlement programs, Federal and State competitive programs, and other programs.

- The size of the reimbursable programs is substantial--$660 million, or 41 percent as large as the general education budgets. Thus among community school districts, these program have the potential to direct significant resources to meet specific pupil needs.

- The unallocated portion of the reimbursable program budget is substantial (34 percent) and the district office portion is relatively large (14 percent). Roughly three-quarters of the unallocated portion is in two categories, fringe benefits and lump sum, neither of which are comparable with the general education budgets.

- The distributional patterns of entitlement programs are different from competitive programs in terms of both the differences in the disparities of the resources and the relationships with poverty.

- The allocations of the two largest reimbursable programs, Federal and State entitlement programs, are strongly related to poverty such that poorer districts and schools receive substantially more funding. For example, a high (80 percent) poverty district receives $784 per (general education) pupil in Federal entitlements and $511 per pupil in State entitlements, while a low (30 percent) poverty district receives $152 and $252 per pupil in State and Federal entitlements, respectively. Federal competitive budgets per pupil are negatively related to poverty with high poverty districts receiving $39 per pupil compared to $92 per pupil in low poverty districts. State competitive budgets per pupil are positively related to poverty with high poverty districts receiving $20 per pupil compared to $12 per pupil in low poverty districts.

F. Reimbursable Plus General Education Budgets

In the final analysis of budgetary data, the general education and reimbursable program categories are analyzed together.

- For the total district general education plus reimbursable education funding per pupil, there is a strong and relatively large positive relationship with poverty, caused largely by the reimbursable program budgets. High (80 percent) poverty districts receive $3,965 per pupil in the two categories while low (30 percent) poverty districts receive $3,080 per pupil. The comparable figures in the total school allocations in the two categories are $3,012 and $2,672.

- On a per pupil basis, higher poverty districts have larger budgets for aggregate teachers' salaries from the combined funding, $2,413 versus $2,182. But this differences between the high and low poverty districts for aggregate teachers' salaries are substantially less than the differences for the total district budget or even the school allocation. This raises the question of why and whether it is appropriate to devote a relatively small amount of the difference in the general education and reimbursable education budgets between the high and low poverty districts to aggregate teachers' salaries.

ANALYSIS OF ACTUAL COMMUNITY SCHOOL DISTRICT AND SCHOOL-LEVEL GENERAL EDUCATION EXPENDITURE DATA

Data on actual expenditures for the 1991-92 school year were provided by the Board of Education. Only the expenditures for the general education category were comparable with the budget data, thus reimbursable program expenditures are not analyzed as part of this study.

- The findings from the analysis of general education expenditures parallel those from the analysis of budgetary data. For the general education category, actual expenditures, whether measured at the district or school levels, are higher than the (January 30) budgets. The difference averages about $57 per pupil, due largely to funding made available after January 30.
- At the district level, the difference between per pupil total general education expenditures and budgets is negatively related to poverty, although the effect is not large, a $41 difference between the high and low poverty districts. The school-level analysis shows that this relationship with poverty is attributable to elementary schools, but not middle/junior high schools.
- Overall in the districts there is a negative relationship

between per pupil expenditures and poverty that varies in its strength depending on the specific variable. The strongest negative relationships are for total school allocation expenditures, direct school allocation expenditures and aggregate teachers' salaries. For example, per pupil total school allocation expenditures in the high poverty districts are $2,120 compared to $2,217 in the low poverty districts.

- The distribution of expenditures is not the same in elementary schools as it is in middle/junior high schools. In fact in middle/junior high schools, all expenditure variables are positively related to poverty. It is thus in the elementary schools where school allocation expenditures, direct school allocation expenditures, and teachers' salary expenditures are negatively related to poverty. For example in elementary schools, per pupil total school allocation expenditures in the high poverty districts are $1,976 compared to $2,115 in the low poverty districts.

SUMMARY OF MAJOR FINDINGS

- Comparing elementary and middle/junior high schools, there are differences in the relationships between general education budgets and expenditures on the one hand, and poverty on the other. In elementary schools, per pupil budgets and expenditures are somewhat lower in total in high poverty versus low poverty districts and schools. In middle/junior high schools per pupil budgets and expenditures are greater in high poverty versus low poverty districts and schools. While in both elementary and middle/junior high schools, average individual teachers' salaries are lower in higher poverty schools, middle/junior high schools overcome these average salary differences by allocating relatively more positions to poorer schools. This occurs to a much lesser extent in elementary schools.

- At the district level for general education budgets, per pupil district office budgets and per pupil unallocated amounts are higher in higher poverty districts.
- For the reimbursable program budgets, the unallocated portion is substantial, and the district office portion is relatively large. Both are much larger as a percent of total reimbursable program budgets than for general education budgets.
- Total reimbursable funding per general education pupil is higher in higher poverty districts. Only Federal entitlement funds show higher spending per eligible pupil in higher poverty districts. In other words, only Federal entitlement funds show a concentration effect with respect to eligible pupils.

SCHOOL AND COMMUNITY SCHOOL DISTRICT BUDGETS AND EXPENDITURES IN NEW YORK CITY

A Report Prepared for the Education Priorities Panel[1]

Robert Berne and Leanna Stiefel

Robert F. Wagner Graduate School of Public Service
New York University
September 1993

I. Introduction

The fiscal pressure on the public education system is intense. This results from a school finance system that provides New York City's children fewer resources than children in the rest of the state, a city government with many other pressing needs, and a federal government that has, over the past twelve years, retreated from its earlier financial commitment to public education. When combined with the increase in poverty caused by the recession of the 1990s, the substantial budget cuts in the range of $750 million over the past several years, the failure of New York City schools to recover fully from the last fiscal crisis[2], and the growing enrollment, the process of allocating resources within the school system is difficult.

The New York City public school system receives its resources from the city, state and federal governments. The 800 elementary and middle/junior high schools are organized into 32 community school districts, and the high schools are administered centrally.[3] The central administration allocates city, state, and federal resources to the 32 community school districts, and the districts in turn allocate resources to the schools within their districts. A similar allocation takes place from the central administration to the high schools.

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[1] Funding for this research was provided by a grant to the Education Priorities Panel by the Aaron Diamond Foundation and by the Andrew W. Mellon Foundation.

[2] See Robert Berne and Leanna Stiefel, "Fifteen Years Older and Deeper in Debt: Effects of the Mid-1070s Fiscal Crisis on Public Elementary and Secondary Education in New York City," Urban Research Center, Robert F. Wagner Graduate School of Public Service, New York University, May 1991.

For the first time, in spring of 1992, the central administration published school detailed budgets for all 32 community school districts and the elementary and middle/junior high schools within those districts. The publications cover the 1991-92 fiscal year. This report presents the results from the first systematic analysis of these district and school budgets.

As our report will document, the publication and dissemination of the school and district budget data represents a significant undertaking on the part of the central administration, community school districts, and schools. Prior to the release of these data, districts and schools varied substantially in the amount of information that was publicly available. Now, for the first time, a standard set of finance variables are available for all elementary and middle/junior high schools, and for data aggregated at the district level.

But with any data-intensive project of this magnitude, an initial version is bound to be imperfect. Our reaction to this situation is two-fold. First, part of this report is devoted to an assessment of the strengths and weaknesses of the current effort and includes recommendations for improvements. Second, we are extremely cautious about the empirical findings from the analysis of the initial data base and we implore the reader to share this caution. But because we believe strongly that the publication of these data is critical to more accountable and effective education, we are presenting a preliminary analysis to show the kind of findings that can be reached with these data, and to provide additional motivation to the school system to continue to improve its dissemination of financial information. Experience shows that the best way to improve a data base is to use it.

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[3] In this report, we use the Board of Education definition of a school, where the basis is almost exclusively the school building. In some cases schools as organizational unit do not conform to buildings which may not be accurately reflected in these data.

The remainder of this report contains three sections. The next section presents the basic structure of the school budget data and explains why caution is needed in the interpretation of the analysis. The following section presents the analysis of the district and school budget data, and the final section presents the analyses of the district and school expenditure data.

II. The Organization of School and District Budget Data

In the spring, 1992, the central administration of New York City Public Schools produced a series of publications that contain school by school fiscal data for all 32 community school districts in New York City. The data for the elementary and middle/junior high schools in each community school district are contained in 32 separate publications, and there is a summary publication for district-level aggregates.

The data in the publications are **BUDGETED** data, not the actual expenditures of the schools and districts.[4] The budgeted data are presented in two ways. First, at the district level, data are presented on the total amount of funds available to the district. Second, at a school level, data are presented on the funds allocated to the schools from the district allocation. Both of these data are analyzed in this report, and it is important to be clear on the distinction. Thus, in this report, the district level data that reflects the total amount that the district receives from the central administration will be referred to as district-budget data, and the amount that the district allocates to each school will be referred to as school spending plan data.

The tables in the budget publications indicate that the information is as of January 30, 1992. Although it is not the primary concern, if future reports use a different date, comparability could be a problem.

The district-budgets and the spending plans are divided into three separate funding categories: general education, reimbursable programs, and special education programs. The general education funds "are the resources necessary to provide basic services such as classroom teachers, instructional supplies, school aides, etc."[5] The revenues for the general education category are city revenues (largely from local taxes) and general state aid (other than categorical funding). In other contexts, general education funds are often referred to as "tax levy dollars." The second category, reimbursable funds, includes "funds earmarked for specific purposes that usually are supplemental to basic instruction" and are composed mostly of state categorical and federal funds.[6] The third category, special education, are "funds used primarily to provide mandated services to eligible children" and includes local, state, and federal revenues.[7]

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[4] Actual data will be analyzed in a subsequent report.

Each of the three funding categories is further divided into around twenty service types for items such as teachers, assistant principals, OTPS (other than personal services), school aides, etc. The general education funding is further divided by purpose (administrative district office, early grades, elementary, etc.) The reimbursable funding category is further divided by five funding streams (federal entitlements, state entitlements, etc.) The city-wide district budget summary tables for general education and reimbursable programs are displayed on the following two pages to illustrate these various categories. On the general education table, the service types are listed down the left hand column and the purposes are listed across the top of the columns. For the reimbursable programs table, the service types are again listed down the left hand column and the five different funding streams are listed across the top of the columns. Additional details are reviewed later in this report.

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[5] New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page ii.

[6] New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page ii.

[7] New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page ii.

In addition to the budgets and spending plans which are measured in dollars, data are available on the number of positions in the general education and reimbursable programs categories, organized by the service types. Not all positions are included in these data, and the position information is not as detailed as the budget information.

The district budget and school spending plan data that were produced in the series of publications were provided by the Board of Education on mainframe computer tapes. The data on these tapes were organized in files for the publications, and we proceeded to read the data on the New York University mainframe, to translate the data into an analytical format, to read the data files into SPSS, and to download the files to personal computers for analysis using SPSS/PC.

Our initial assessment of the data was influenced by two facts. First, this is the initial system-wide analysis performed on these data and, second, the spending plan methodology is itself relatively new and has several limitations that were reported in the budget documents under "district comments". Moreover, the spending plans are reported "as submitted," without additional auditing and with 800 schools, three funding categories, twenty service types, and seven purpose types, there are bound to be errors. Thus, before reporting on the results of the data analysis, it is useful to review the operational, district-specific and data-specific limitations.

A. Operational Limitations

There are several operational limitations, stemming from the design and implementation of the budget reporting system, that affect the analysis of the financial data. In some cases the limitations can be corrected in the future as the budget system is improved, but in other cases the limitations are not correctable but need to be considered in the interpretation of the budget data. We have already noted the fact that the budget reports are not "as of a specific date" which is needed for proper interpretation and comparability from year to year.

As shown in Table 1, when the general education school spending plans are reported for each district, the largest single item is the allocation for teachers' salaries. The budget allocation from central to each district is based on a formula that first determines the number of teaching positions for the district, and then translates this to a dollar figure by using the average teachers' salary in the district. When the districts then develop a general education school spending plan for each school and report this in the spending plan publications, the district's average teachers' salary is again used for each school in the district instead of the actual teachers' salary in the school. As a result of this practice, within district dollar differences in the general education school spending plans do not reflect the actual dollar differences caused by the within district variation in teachers' salaries. In the future, actual teachers' salaries by school should be reported in the general education budget. It is important to note that actual teachers' salaries are used in the reimbursable programs budget.

A limitation is caused by the inability of the budget system to allow the district to split the dollar allocation or the position assignment of full-time personnel among two or more schools. Many districts have personnel who work in more than one school, and without the ability to "split" positions, districts are forced to assign the dollars of these personnel to (a) one of the schools in which they work, (b) the district office, or (c) the unallocated category. The comments from the districts printed in the budget book indicate that some combination of the three options were used, which will affect the analysis of the district and school data. Because split positions are common and should not be penalized by the budget system, in the future the district and school budget system should be modified to permit split positions.

There is a related but different problem with district programs that serve multiple schools, but happen to be located in a specific school. Examples include staff development or after school programs. In these cases the special program will increase the budget of the school, and it will distort per pupil calculations where typically only the pupil count in the school in used. Note that in some districts, programs that serve multiple schools may be included in the district office budget. To avoid distortions caused by programs in a single school that serve multiple schools, it is recommended that these programs be identified in a separate category to improve the school to school comparisons.

These last two practices are part of the broader issue of the meaning of the unallocated and district office amounts analyzed in the next section. In the general education category the district budget is divided into three categories: (a) school spending plans; (b) district office budgets; and (c) an unallocated amount. The analysis in the next section examines the variation in each of the categories Unfortunately, there are limits in this data set on the interpretation of the district office and unallocated amounts, not only because of the split positions, but because of the variation in the acceptable budget practices in the districts. For example, some districts used the unallocated amounts as a way to cushion the budget cuts that were known to be coming shortly after the dates of the school spending plans (late January 1992). In other cases the unallocated amount may reflect district services to students in temporary housing or a district-wide program, for example for parents or district-wide expenditures such as leases. The comments from the districts suggest that there is considerable variation in allocation practices for items such as telephone bills which may be assigned to a school or allocated entirely to the district office, or even for certain types of personnel such as school aides and paraprofessionals.

There is a specific problem in the general education budget related to extended use. The dollars needed to pay for custodial services to extend school hours are included in the extended use code. In many cases, the schools are reimbursed by a community organization for these custodial services, however the revenue offset is not reflected in the school spending plans.

Finally, other services that are donated to the schools by parents and other groups at the school-level are not included in the general education budgets.

There are two problems related to the position data. First, the position data do not include all personnel. More specifically, excluded are school aides, paraprofessionals, family workers, social workers, and school guards. Second, although sabbatical positions are included, the comments from the districts suggest that they may have been counted differently from district to district resulting in some comparability problems.

An important issue pertains to the reimbursable program data. When the per pupil calculations are reported in the publications, the pupil count is an "eligible pupil count" for each school based on the number of pupils who score below certain performance levels.[8] While these students may be the target group for many of the reimbursable programs, particularly the state and federal entitlement grants, other reimbursable grants are not targeted on these pupils making the per pupil calculations with the eligible pupils somewhat inaccurate. Also, some reimbursable programs are for pre-kindergarten pupils who are not included in any of the pupil counts in the data. In the future, different pupil counts may be needed for different types of reimbursable programs.

There are several limitations with the special education budget data. First, as noted in the budget publications, there are budgeted resources for full-time and part-time special education students and it is not always possible to accurately separate these expenditures. Second, full time special education students are provided services in different categories, where the program and resource requirements vary significantly, yet there is only one count of full-time special education students. Thus, the different budgets across districts and schools may reflect the different mix of special education students. Third, although special education budgets are separate, general education resources are also used for special education students.

Finally, there are several interpretive issues, raised in the comments on the budget publications by the community school districts, that are usefully reviewed prior to the analysis.

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[8] See New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page 3-2.

First, district-level administrative costs are likely to have both a fixed and variable component. Thus, districts with lower enrollment may have higher per pupil budgets for administration. Second, at any given time, some budget requests will be pending but not reflected in school spending plans. Third, the UFT contract provides for extra preparation periods for chapter 1 schools. Fourth, certain budget items may be affected by (rollover) deficits from prior years. Fifth, overcrowded schools may not have enough classrooms to take full advantage of the limits set on class sizes and thus may have relatively higher spending for paraprofessionals and lower spending for teachers. Sixth, the large number of early retirements for principals and assistant principals may make this a somewhat atypical budget year. Finally, some districts may have higher spending due to programs that are in place in selected districts, for example, the Latchkey program.

B. District-Specific Limitations

There are two types of district-specific limitations that will affect the analysis of the 1991-92 community school district and school budget data. The first type involves the way in which the districts implemented the school allocations in their district and the second includes instances when the reported data on specific schools is inaccurate. For both types, our source is the comments from the districts in the budget publications. Based on time limitations and the fact that 11 district did not submit comments, the limitations presented in this section should be treated as examples.

The most prominent example of the first type of limitation cited by the districts is their inability to fully assign all dollars and positions to the schools. Some of these practices are explained in the previous section, however the more district-specific occurrences involve a specific decision, for example, to not allocate per diems and prep periods to schools or to not allocate substance abuse workers to schools. In these cases the districts realized that they should be assigning these dollars or positions to the schools, but were unable to do so in this budgetary cycle.

A different example of district-specific practice that will affect the interpretation of the data analysis is a strategic policy that is educationally sound, but may result in differences between the district's data and the more standard practice in all districts. For example, one district may have a policy of funding guidance counselors whenever possible from reimbursable funds. The result may be that guidance counselor budgets will be relatively lower in the general education budget.

The second type of district-specific limitation relates to specific schools where the reported information does not accurately reflect the activities in the school. The comments from the districts in the budget publications presented several of these examples:

- In district 3, school 208, the reported salaries for teachers is too low by a factor of $463,000.
- In district 3, schools 149 and 207 are the same school.

- In district 5, schools 175 and 275 have a common budget and principal, but are two separate schools.
- K120 is not a school in district 8.
- In district 15, school codes K927, K988 and K146 all refer to the Brooklyn New School.
- In district 24, a typo led to $100,000 in per session funds in PS 81.

The way in which these schools are treated in the analysis are discussed in the next section.

C. Data-Specific Limitations

The final category of limitations addresses the quality of the data directly. Before we analyze a data base of this magnitude and complexity, we need to be sure that it is accurate. But because we are the first to analyze what is an initial effort at reporting, we need to carefully scrutinize the reported data.

Because these data are of unknown quality, we devoted a substantial part of the project's time to assessing whether the numbers we used in our analyses were sensible ones. We did not do any audits of the data to see if district personnel were following either the spirit or the letter of instructions provided them about how to budget by school. Rather, we checked outliers to eliminate improbable numbers from our analyses of relationships. We have defined outliers to be data that fall outside of some bounds of reasonableness, based in part on the actual distribution of the data.

We report the results of this outlier analysis in the next section after we present the structure of the analysis and define more specifically the variables that we will be analyzing.

III. Analysis of Community School District and School Budget Data

Despite the limitations that are presented in the previous section, and the less than perfect quality of the data, there are three important reasons for proceeding with the analysis. First, the analysis of the budgetary information will both show the importance of these data to understanding resource allocation and provide a strong rationale to continue and improve the publication and dissemination of these data on an annual basis. The analysis should provide an incentive for the central administration and the districts to address the limitations and improve the quality of the data in subsequent years. Second, by carefully taking the limitations and data quality into account, initial conclusions can be reached about resource allocation in New York City's elementary and middle/junior high schools. These initial conclusions will increase our understanding of a complex process that affects over 800,000 children.

The structure and methods of analysis are guided simultaneously by the important policy questions and the limitations and accuracy of the data. The first part of the analysis focuses on the general education category. This is the logical starting point because it is the largest category and all schools receive general education funding. Because the general education dollars fund general education positions, which again comprise the largest category of positions, the general education position analysis is presented in the second part. Finally, the third part presents a preliminary assessment of the reimbursable program budgets.

An analysis of the special education data are not presented in this report because of the limitations inherent in the data. As noted in the previous section, special education services are delivered to both part and full-time students, and the full-time students receive substantially varying services and resources depending on the characteristics of each student. Thus without additional information on the type of pupils in special education and the specific services and resources they are receiving, it is not useful at this time to compare per pupil budgets for special education.

A. General Education Budgets

In this part, the 1991-92 district-budget data and the school spending plan data are analyzed for the 32 community school districts in New York City. The first analysis focuses on the district-level data, both the aggregate general education budget allocated to the district and the way in which that budget is allocated to the schools and district offices. In this analysis, which aggregates the budget data at the district level, no changes have been made in the data as reported in the publications and on computer tapes. The second analysis focuses on the budgets at the individual elementary and middle/junior high schools. In this analysis, certain data are excluded based on either outlier analysis or comments from the districts.

1. District-Level Analysis

General education dollars are allocated to the 32 community school districts through a series of formulas that have been in operation for several years.[9] The analysis in this report does not focus on the details of the formulas, but instead assesses its results. These results are for the reported spending plans which are dated around the end of January 1992 for the 1991-92 school year. Note that these are district totals and include elementary and middle/junior high schools. In this part of the analysis we examine overall district budgets, then turn to a more in-depth assessment of the school allocations at a district level of aggregation.

a. Overall District Budgets

Once the districts receive their allocations, the resources can be (1) allocated to individual schools in the district; (2) allocated to the district office; or (3) not allocated to either. This final option, the unallocated category, is only available during the year; by the end of the year resources must be in the schools, district offices, or unspent.

The logical place to start in this analysis is division of the general education budget into the three groupings: allocated to schools, allocated to district office, and unallocated. Table 3 presents several basic statistics for per pupil amounts in these three groupings and the total district general education budget. The pupil count is defined as pupils in general education in the community school districts, and in this analysis equals 625,040.

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[9] For an explanation of these formulas, which are organized in five modules, see Board of Education, Office of Budget Operations and Review Memorandum No. 2, FY 1992, August 1, 1991.

The basic statistics in Table 3 are explained in some detail here, because the format of the table is repeated throughout the report. For each of the four per pupil spending variables, the mean is shown first. The mean is the average for all community school districts, and in this case the average is computed on a pupil-weighted basis. Thus the mean is not simply the 32 district numbers divided by 32 but instead takes into account the relative size of the district.[10] Following the mean, the minimum and maximum values are displayed. The minimum is the lowest value for a community school district on that variable and the maximum is the highest value for a community school district.

The next three statistics are helpful in the assessment of the spread or dispersion in the distribution. The range is the difference between the highest (maximum) and lowest (minimum) value among the 32 community school districts. Although the range is relatively easy to understand, it has limited value because it is determined by the two extreme values in the distribution. The next two measures take into account all of the observations in the distribution.

The standard deviation (also computed on a pupil weighted basis) is a commonly-used statistic that measures the spread of a distribution. It is defined as the square root of the variance, where the variance is the average of the squared deviations from the mean. Note that in a normal distribution, roughly two thirds of the observations in a distribution fall within plus or minus one standard deviation of the mean.

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[10] We use the weighted pupil method throughout this report because methodologically it assesses the data more validly and for this reason it is the more widely used method in school finance. We have also carried out all of the analyses reported in this report on an unweighted (district-weighted) basis. The choice of a weighting method does not affect the results reported in this report. In this case, for example, the mean total district GE budget per pupil on a district average basis in $2,553 compared to the $2,550 reported in the Table 3.

The final statistic shown in Table 3 is the coefficient of variation, one of several well-accepted inequality measures.[11] The coefficient of variation is defined as the standard deviation divided by the mean. It can be interpreted as follows. If the coefficient of variation is .10 and the distribution of observations is roughly normal, then about two thirds of the observations fall within 10 percent of the mean value. If the coefficient of variation is .50, then roughly two thirds of the observations fall within 50 percent of the mean value and this latter distribution is more unequal than the former. Note that if all the values of a distribution are the same, the standard deviation and the coefficient of variation are zero, indicating perfect equality. The primary advantage of the coefficient of variation over the standard deviation is that coefficients of variation can be compared across variables with different means. We will show the practical meaning of this shortly.

The final two rows of Table 3 show the number of districts in the analysis and the number of pupils. Throughout the report, the number of districts remains unchanged at 32, however the pupil count varies due to differences on the budget tapes, and because in certain analyses some schools are dropped based on data of questionable quality. Finally, note that data that should add exactly may be off slightly due to rounding errors.[12]

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[11] For additional explanation of the use of statistics in school finance equity analysis see Robert Berne and Leanna Stiefel, The Measurement of Equity in School Finance, Baltimore, MD: The Johns Hopkins University Press, 1984.

These statistics can now be used to analyze the district-level general education budgets. The mean total per pupil general education district budget is $2,550; with a high of $2,842, a low of $2,414 and a range of $428. Note that because teachers are the largest single budget category, these total potentially are influenced by the number of teachers and teachers' salaries. The standard deviation is $77.1 and the coefficient of variation is .03. Although it is difficult for a reader to judge the size of this coefficient of variation at this stage, based on the series of analyses contained in this report, inequality is relatively low.

Over 91 percent of the total district general education budget is allocated to the schools within the district. Average district-level per pupil school allocation is $2,327, with a high of $2,582 and a low of $2,062. The inequality is somewhat greater than for the district total budget; the range is $520, the standard deviation equals $120.2 and the coefficient of variation is .05.

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[12] For example, the total of means of school allocation, district office and unallocated is $2,551 compared to the mean for the total of $2,550. The difference is due to rounding error.

The per pupil district office budgets and the unallocated amounts are roughly the same size, $114 and $110, respectively, but the inequality of these amounts are much greater than the total budget or school allocations. Note that although the standard deviations of the per pupil district office and unallocated amounts are the same order of magnitude as the standard deviations of the per pupil total district and school allocations, the coefficients of variation are substantially higher for the district office and unallocated data.

The conclusion is that there is substantially more variability in the practices among the districts in their allocations to the district office and the unallocated amounts. As may be expected, districts that tend to have higher per pupil unallocated amounts tend to have lower per pupil school allocations and per pupil district offices. Table 4 presents the values of the four per pupil district-level budget data for all 32 districts. The tradeoff between the district office and unallocated amounts is visible by noting that only two districts have values over $100 on the two variables. In all other districts, a value of over $100 in one amount is associated with a value of under $100 in the other amount.

Given the comments in the previous section of the report, it is not possible to label any single district's practices as good or bad. Clearly, there should be a preference to spend the resources effectively in the schools, thus districts that are on the high end of the district office-unallocated amounts may not be accomplishing this. Moreover, we would expect that as the districts gain more experience with the budgeting system there will be a tendency to reduce the district office-unallocated amounts. From a strictly statistical point of view, the coefficients of variation of .46 and .91 for the district office and unallocated budgets, respectively, suggest that, if it is consistent with sound education policy, there may be some room to reduce the dispersion in the district office and unallocated budgets. We have to be cautious with this statement because of the use of the unallocated amounts to cushion budget cuts and for positions that are allocated to more than one school.

The final issue that we address for these district-level data is the equity of the distribution with respect to poverty. Although we recognize that these are general education budgets, and that the many of the reimbursable programs are aimed specifically at children in need, it is nonetheless important to know whether there is a relationship between the general education budgets and poverty.

We use regression analysis to assess the relationship between the budget data and poverty, again because it is a well-accepted technique in school finance equity analysis.[13] For the poverty variable, we use the percent of pupils who qualify for free lunch in the school in 1990-91.[14] In separate analyses we have also used a slightly different poverty variable, the poverty percentage (which is the higher of a geographically defined poverty measure and free lunch), but the use of one poverty measure or the other does not affect the results in this report.

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[13] For further discussion of regression techniques in equity analysis, see Robert Berne and Leanna Stiefel, The Measurement of Equity in School Finance.

The results of the regression analyses for the four per pupil district-level budget variables are reported in Table 5, but again because this is the first of a series of similar tables, we explain the meaning of the entries in the table before we discuss the specific findings.

For each per pupil district-level budget variable we ran a regression with the budget variable as the dependent variable and the fraction of the pupils in a school who qualify for free lunch as the independent variable. In all cases the regressions are weighted by the number of pupils in each district. The mean value of the dependent variables are displayed in Table 3, and the mean value of the free lunch variable is .598, indicating that, on average, 59.8 percent of pupils in the 32 community school districts qualify for free lunch. The distribution of the free lunch variable ranges from .12 (12 percent) to .82 (82 percent).

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[14] We use the 1990-91 data because when this analysis was carried out (September 1991 to March 1992), the data on poverty by school for 1991-92 was not available. Although the use of the 1990-91 data was based on data availability, a case could have been made to use these data because we are analyzing budget data and at the time of the budget allocations, the 1991-92 poverty data were not known. We are confident that the year to year variation in poverty will not affect the conclusions drawn from this research.

One way to present the relationship between poverty and the dependent variable is to calculate the value of the dependent (budget) variable in high and low poverty districts. If we examine the districts that are third from the bottom and third from the top of the poverty distribution, to avoid the extremes, then the values of the free lunch variables are .29 in the low poverty district and .81 in the high poverty district. The difference between these two districts is 52 percentage points and this difference brackets 26 of the districts with three districts higher than .81 and three districts lower than .29. To simplify the numbers, we will examine the differences in the dependent variable in a high poverty district (80 percent poverty) and a low poverty district (30 percent).

The first row in Table 5 shows the regression coefficient from the four regressions. When free lunch is the independent variable, the value of the regression coefficient is the expected change in the dependent variable associated with one unit change in the independent variable (and in this a case one unit change is a change of 100 percent poverty).[15] Because the regression coefficient is not simple to interpret by itself, we present the second line in the table, the "result of a 50 percentage point change in free lunch." This can be interpreted as the expected dollar difference between a high poverty district and a low poverty district as defined above.[16] The third and fourth lines in the table show the estimated values of the dependent variable for a high poverty district (80 percent free lunch) and a low poverty district (30 percent poverty).

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[15] Poverty is represented as a proportion that varies from 0 to 1. A change of .01 units in such a proportion is equivalent to a change of 1 percentage point; likewise a change of 1 unit in such a proportion is equivalent to a change of 100 percentage points.

The fifth line presents the simple correlation which is a measure of the association between the independent and dependent variables. The simple correlation ranges from -1 to +1. A value of +1 indicates a perfect positive linear relationship and a value of -1 signifies a perfect negative linear relationship. A simple correlation of 0 indicates either that the variables do not move together linearly or that they are related in a non-linear way. We also present the coefficient of determination, in line six, which in this case of a single independent variable is the simple correlation squared. The coefficient of determination can be interpreted as the fraction of the variation in the dependent variable associated with the variation in the independent variable.[17]

Returning to Table 5, we can now interpret the regressions that assess the relationships between the four per pupil district-level budget variables and poverty, measured by the fraction of students qualifying for free lunch. For per pupil district GE budgets, there is a relatively small and weak positive relationship with poverty; the high poverty district is estimated to receive an allocation that is $24 higher than a low poverty district. An indication of the small size of the relationship is the relative difference between the high and low poverty districts. An indication of the weakness of the relationship is the relatively low simple correlation and coefficient of determination.

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[16] Because the free lunch variable is expressed as a fraction varying from 0 (0 percent free lunch) to 1.0 (100 percent free lunch), the effect of a 50 percentage point change in the free lunch variable is one half the value of the regression coefficient.

[17] It should be noted that we have not displayed the statistical significance of the regression coefficient in this table. Because we are using pupil weighted regressions, the coefficients are statistically significant at the 1 percent level in virtually all equations; for interpretation, the statistics displayed in the tables are more meaningful than the significance tests on the coefficients.

The weak positive relationship between total per pupil district budgets and poverty is composed of (1) positive relationships between per pupil district office budgets and poverty; and per pupil unallocated amounts and poverty; and (2) a negative relationship between per pupil school allocations and poverty. Continuing with Table 5, wee see that higher poverty districts have a tendency to assign somewhat higher per pupil amounts to the unallocated category such that a high poverty district is estimated to have $135 per pupil unallocated while a low poverty district is estimated to have $74 unallocated. Higher poverty districts are also estimated to have somewhat higher per pupil district office budgets. A high poverty district is estimated at $121 per pupil in the district office compared to $103 per pupil in the low poverty district.

While higher poverty districts have a slightly higher per pupil total budget, with higher unallocated and district office budgets, they allocate lower amounts to the school. A high poverty school is estimated to allocate $2,304 per pupil while a low poverty school is estimated to allocate $2,360 per pupil.

These differences are not large; however they document that despite an overall district-budget that tilts slightly in the direction of poorer schools, the district office budgets and the allocation practices mean that schools in poor districts receive lower per pupil allocated budgets.

b. School Allocations at the District-Level

It is important to go beyond the total allocation to schools in the districts and to examine the budget choices within schools. District-level school allocations are examined in this part in two ways. First, we categorize school spending as either "direct" education or "indirect" education and assess these categories within the schools at the district level. Second, because of its obvious importance, we examine budgets for teachers separately.

(1) Direct and Indirect District-Level Allocations

Educators and policy-makers have been concerned for some time about spending scarce resources on personnel and programs that are not central to the educational mission. Under the title of growing bureaucracy, administrative overhead, or the proliferation of non-essential services, there has been a fear that resources devoted directly to student learning are commanding a smaller share of the total. As a result of this concern, we extend the analysis beyond total budgets allocated to the school-level.

At the current time, there is not a universally agreed-upon definition of what is central to the education function and what is not. Moreover, we are not in a position to define the term and gather the appropriate data; instead our challenge is to take the existing budget codes as displayed in Table 1 and construct a sensible and meaningful set of definitions for analysis.

We have chosen to categorize each of the budget codes at the school-level as either direct education or indirect education, where the distinction is based on the question of whether the resources in question are directly serving an educational function or indirectly supporting the educational function. Such a distinction based on the existing budget codes, where each code must be entirely in one category or the other, will never be perfect. Nevertheless, we believe that our distinction is helpful in gaining understanding of school budgets.

The data provided by the central administration are at a level of detail such that the budget codes shown on Table 1 are available for all schools. In this analysis we are examining the district totals of the school allocations, so in effect we have a table similar to Table 1 for all 32 districts. Our challenge is to assign every entry in Table 1 to either the direct or indirect categories, using the information contained in the codes that define the rows and columns of the table.

We define the entries in all of the columns except "administrative-district office" as either direct or indirect, depending upon the service type in the left hand column.[18] In the case of the administrative-district office column, it is defined entirely as indirect. The other six columns are early grade, elementary, junior high school, bilingual, after school, and other.[19] For the remaining service types in the other six columns we defined direct and indirect as follows:

Direct	Indirect
Counseling	Administration
DC 37 Paras	Assistant principal
Lab specialist	Community relations
Lump sum	Extended use
Other hourlies	Principal
OTPS	School guards
Paid leaves	School aides
Per diem	Secretary
Per session	
Prep period	
Teacher	
Uft paras	

We recognize that any definition such as this involves some judgment calls. For example, an argument could be made that in some schools the assistant principals are involved in direct education, yet we concluded that in most cases assistant principals performed a support function. Also, some of the budget codes in direct, such as paid leaves, are not currently providing direct service, but we judged it to be a budget item that is part of the cost of direct education.

Using this definition of district-level direct and indirect school allocations per pupil, we can now examine the distribution across districts. Table 6 presents the basic statistics for the per pupil total school allocation and the direct and indirect school allocations.[20] On average the per pupil direct school allocations are 86.5 percent of the total school allocations across the districts. The mean figures are $2,012 for direct and $314 for indirect. The direct school allocations have a range of $477, from a high of $2,264 and to low of $1,789. The coefficient of variation indicates that the disparity in the direct allocation is similar to that of the total. (Both are .05.) The per pupil indirect allocations have relatively more variability, with a range of $192, a maximum of $412 and a minimum of $220. The coefficient of variation is .13 indicating that the disparity in the per pupil indirect allocations is higher. The findings from the previous section need to be kept in mind when interpreting the disparity. Some of the differences in the district office and unallocated categories could be affecting the variability in the indirect allocation. That is, real variability might be lower after the allocated amounts are put into the schools; also some districts may budget indirect service lines more heavily in the district office.

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[18] Note that these are all allocations in the schools even the administrative amounts. The budget system has a separate coding for the actual district offices.

[19] It should be noted that the OTPS in the other column is primarily textbooks.

Table 7 lists the per pupil direct and indirect allocations for all 32 districts. In this case, there is not an inverse relationship between direct and indirect such that when one is high the other is low. In fact, the two are slightly positively correlated (.166) so that districts do not appear to be budgeting for indirect at the expense of direct. In fact, the district with the highest per pupil total school allocation (district 1 at $2,583) has the highest per pupil indirect allocation ($412) and the district with the lowest per pupil total school allocation (district 22 at $2,062) has the lowest per pupil indirect allocation ($220).

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[20] The total column in Table 6 is identical to the school allocation column in Table 3 and is repeated for clarity.

The final issue for the direct and indirect allocations is the relationship with poverty. Table 8 presents the results of the regressions using the format explained earlier with the regression for total school allocation repeated from Table 5 for comparison. This analysis shows that the negative relationship between per pupil school allocations and poverty is composed of a stronger negative relationship between direct allocations and poverty and a positive relationship between indirect allocations and poverty. The expected difference between a high poverty district and a low poverty district is -$100 for direct and +$44 for indirect. An expected per pupil difference of $100 for direct allocations is the largest poverty-related difference we have found thus far.

Such a difference in direct allocations could be accounted for by a number of factors, but the major contenders are fewer positions (per pupil) in the high poverty district or lower salaries in the high poverty district. We examine both of these explanations in subsequent parts of this report; the position analysis is presented in the major section after the general education section and the salary analysis is presented in the next part when we examine the allocation for teachers.

Thus far we have peeled back several layers of budgets below the total per pupil district budget. Although the high poverty district is expected to have a $24 higher per pupil total general education budget, the high poverty district is also expected to have higher per pupil district office, unallocated and indirect budgets. The result is the lower expected per pupil direct budgets in the high poverty districts.

(2) Allocations for Teachers

The single largest expenditure of the community school districts is for teachers, and it is useful to analyze the budgets for teachers' salaries separately. Two per pupil teachers' salary variables are examined at the district level: general education teachers' salary district budget per pupil, and general education teachers' salary school allocation per pupil. The only difference between the two variables is the teachers' salary that is not allocated to a specific school.

Table 9 presents the basic statistics for the two per pupil teachers' salary variables with the school allocation in the first column and the district budget in the second. First, based on the two columns, over 96 percent of the teachers' salaries are allocated to the schools. Although a question could be raised why this figure is not higher, the limitations of the data, particularly the way that teachers serving more than one school are allocated, could be biasing the percentage downward. Second, compared to the average total school allocation shown in Table 6, teachers' salaries comprise 78 percent of the total general education school allocation.[21] Third, the disparity in the two per pupil teachers' salary variables is comparable to the disparity in the total school allocations; coefficient of variations are around .04 to .05. Table 10 presents the values of the two per pupil teachers' salary variables for all 32 community school districts.

The results of the regressions between the teachers' salary variables and poverty are shown in Table 11. Consistent with the findings from the direct, indirect, and total school allocations, per pupil teachers' salaries, both school allocations and district totals, are negatively related to poverty. For example, for per pupil teachers' salaries allocated to the school, the high poverty district is estimated at $1,790 and the low poverty district is estimated at $1,864, a difference of $74 per pupil.

As we indicated earlier, this difference could be the result of differences in staffing levels and differences in salary levels across schools and districts. In the next major section, positions are analyzed, but it is useful at this stage to examine the effect that teachers' salary levels have on these findings. For the elementary and middle/junior high schools in the community school districts in 1990-91, the average teachers' salary is $41,107. The results of the district-level regression of teachers' salary on percent free lunch are shown in Table 12 and they indicate a very strong negative relationship between salary and poverty: teachers in poorer districts have substantially lower salaries. The estimated difference between the high poverty district and low poverty district is $4,536; the salary in the high poverty district is estimated at $39,275 while the salary in the low poverty district is estimated at $43,810.

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[21] It should be noted that in the general education budget, fringe benefits and pensions are not included in the district or school budgets.

Thus, it is clear that one reason for the lower budgets for per pupil school allocations, direct allocations, and teachers' salaries in the high poverty districts is the lower levels of teachers' salaries in the high poverty districts. A second reason is the higher levels of per pupil unallocated budgets in the poorer districts. As we will see in the next major section, the effect of the salary levels is partially offset by the assignment of positions.

(3) School Allocations at the District-Level for Elementary Schools and Middle/Junior High Schools

The final district-level analyses inquire whether the findings that we have identified for the districts hold when the elementary and middle/junior high schools are examined separately. In this analysis, we base the designation of a school as an elementary school or a middle/junior high school on the central administration designations.[22] We will examine per pupil district-level school allocations for direct and indirect allocations, allocations for teachers, and total school allocations. The same methodology that was used in the previous parts will be used here.

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[22] On the budget files, elementary schools are coded 110 and middle/junior high schools are coded 220.

Tables 13 and 14 present the basic statistics for the per pupil budget variables for the elementary schools and middle/junior high schools, respectively. The per pupil variables for the middle/junior high schools are consistently higher than for the elementary schools. The per pupil differences are $412 for the total, $390 for direct, $20 for indirect, and $366 for teachers' salaries. Part of the difference in total, direct, and teachers' salaries stems from the high salary level in the middle/junior high schools compared to the elementary schools, $40,707 versus $41,962, but this only accounts for about one-fifth of the difference. There are also smaller pupil teacher ratios in the middle/junior high schools and this will be explored further in the next major section.

The disparity in the variables are roughly the same for elementary schools versus middle/junior high schools. Note that although the range for the direct allocation is substantially higher for the middle/junior high schools compared to the elementary schools, the coefficients of variation are not substantially different suggesting that one or two values are producing the larger range. This can be seen in Tables 15 and 16 which list the four per pupil variables for all 32 districts for the elementary schools and the middle/junior high schools, respectively. Note that for the middle/junior high schools, although there are a few more extreme values, most of the values are grouped fairly closely around the mean. The two districts where per pupil direct school allocations stand out on the low end of the distribution, districts 3 and 5, were shown in Table 4 to have the highest per pupil unallocated amounts. This is just another example of why conclusions drawn from these analyses need to take into account the limitations in the data.

The last question addressed in this part is whether the relationships for the district as a whole between the budgets and poverty hold for elementary schools and middle/junior high schools when they are examined separately. Tables 17 and 18 present the results of the regression analysis for the elementary schools and middle/junior high schools, respectively, and the results show clearly that the relationship with poverty is different for elementary schools compared to middle/junior high schools.[23]

In elementary schools, the relationship with poverty is similar in direction to what we found for the district as a whole, except the size of the relationship is somewhat stronger. The per pupil direct, teachers' salaries, and total school allocations are lower for the high poverty districts and the per pupil indirect is the opposite. But instead of a $100 difference that we found for the entire district for the per pupil direct allocation for elementary schools the difference is $128.[24]

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[23] For comparability, we continue to use the 50 percentage point difference to illustrate the difference between high and low poverty schools even though the distributions are not identical. The differences between in percent eligible for free lunch for the third from the bottom and the third from the top districts are 56.9 percentage points and 43.4 percentage points, respectively, for the elementary schools and the middle/junior high schools. The differences in percent eligible for free lunch from the bottom to the top of the distributions are 77.1 percentage points for elementary schools and 69.3 percentage points for middle/junior high schools.

In the middle/junior high schools, the relationship is the same for all four variables: higher per pupil direct, indirect, teachers' salaries and total school allocations in the poorer districts. This relationship holds despite the fact that as shown in Table 19, the levels of teacher salaries are lower in the poor districts for both the middle/junior high schools and the elementary schools.

One explanation for the differences in the relationship between poverty and budgets for the elementary schools compared to the middle/junior high schools is the differences in the allocations of positions and this is explored in the next major section. A second possible explanation is that a much higher percentage of the unallocated budgets in the poorer districts are related to elementary schools because of issues such as staff working at multiple schools. Future research will be required to pursue this explanation. Nonetheless, it is worth noting that regardless of the causes, more resources are available to poor districts for middle/junior high schools, but not for elementary schools. This also warrants further investigation.

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[24] The regression results for the entire district appear in Tables 8 and 11.

2. School-Level Analysis

Resources allocated from the central administration to the 32 community school districts are budgeted by the districts in one of three ways: to the schools; to the district office; or to an unallocated category. The school-level analysis reported here is able to look only at the dollars budgeted to the schools, and the district analysis described in the previous sections indicates a number of reasons to be cautious about the validity of the results from such a school-level analysis.

First, school-level budgets have never before been made public and the first presentation of any data is likely to contain more errors than later presentations. Second, on average, a little under nine percent of district budgets are not allocated to the schools, but are either allocated to district offices or are left unallocated. Some of the unallocated is eventually spent in the schools, so the results of this school-level analysis could change when actual expenditures are analyzed. This is especially true for the analysis of budgeted dollars as they relate to the concentration of poor students, because at the district level the unallocated dollars per pupil are positively correlated with poverty. That is, districts with more poor children have higher amounts per pupil left unallocated. Also, the comments by districts indicate differences in how items such as the following are budgeted: jointly-used positions, telephone bills, and programs serving several schools or districts. Some districts budget these in a school or schools and others put them in the district office. If such items are budgeted to schools, the per pupil dollars in those schools will be higher than if such items are budgeted to the district offices. Thus, in the absence of consistent practices on how unallocated and district office dollars are budgeted, school-level analyses should be interpreted as analyses of the results of *budgeting* practices, rather than the results of *spending* practices.

Despite these caveats, the school-level analyses are interesting because they are the first to be conducted with publicly available data. If the data continue to be published each year, relationships found in these analyses can be explored to see if there are changes.

a. Specific Data Limitations at the School Level

A number of schools are eliminated from our school-level analyses. There are two bases for these eliminations. First, the district comments published in the *School Budget* volumes indicate a number of schools with bad data. For example, sometimes a spending number is incorrectly entered; other times the data for two schools should have been reported as one school. All of the schools that districts cite as having bad data are eliminated from the analyses. Table 20 lists these schools by borough, district, and school number.

A second reason why some schools are eliminated is that they contain per pupil spending numbers that fall outside bounds of reasonableness, based in part on the actual distribution of the data. We report both aggregate statistics on the numbers of outliers for variables at the school level and also details for several individual schools containing outliers.

Tables 21 and 22 present the aggregate statistics from our data checks for each major per pupil variable in our analyses of general education and position data. (The analysis of position data is presented in the next section; the outliers are discussed here.) Tables 21 and 22 identify the variables analyzed for outliers (across the top), the type of school (elementary or middle/junior high), the cutoffs values, and the number and percent of schools eliminated because the value of the variable for that school is above or below the upper or lower cutoff value. Low percentages of schools are eliminated for most variables. The only relatively high number of eliminations, 10.1%, occurs in the position file for the general education teacher spending variable.

Tables 23 and 24 list the elementary and middle/junior high schools eliminated for one variable from the general education and position files. The variables from each file are comparable (grand total spending and grand total positions) per registered pupil. One would expect some overlap in the schools eliminated because outliers on spending will often result in outliers in positions. For the elementary schools, there are 16 (17) schools eliminated in the general education (position) file, and nine of those schools overlap. For the middle/junior high schools, where there are five schools eliminated in both the general education and position files, two of them overlap.

Districts 3, 4, 5, 7, 10, 26, and 31 have two or more schools eliminated when both variables and two school levels are combined on the basis of information contained in Tables 23 and 24.

In the school-level analyses that follow, all schools listed in Table 20 are eliminated. In addition, for each variable, the cutoffs specified in Tables 21 and 22 are used to determine additional schools to eliminate because the values of their variables fall above or below the upper or lower cutoff values.

### b. Elementary Schools

The school-level analyses precede in the same order as the district analyses -- descriptive statistics are followed by regression analyses. Specifically, we first present and explain descriptive statistics for all the schools in the city; second we present and explain descriptive statistics for schools within each of the 32 community school districts; third we present and explain regression results of each dependent variable with the percentage of pupils in poverty, for all the schools in the city; and last, we present regression results of teacher salaries with percentage of pupils in poverty, for all the schools in the city.[25]

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[25] Recall that in each analysis, some schools will be eliminated based on district comments or outlier analysis. When we say "all schools in the city", we mean that the ones with bad data are eliminated.

Somewhat differently than in the district analyses, we concentrate on a more limited set of dependent variables in the school analyses. We cannot analyze unallocated dollars or district office dollars, because these two variables are not defined by school. We do not analyze direct and indirect spending by school because we think the potential errors in these categories at the school level are too large; their magnitudes are determined by choices about unallocated and district office dollars and for particular schools these choices could have a large effect. The two variables that we do analyze are total general education allocation per pupil and general education teacher salary allocation per pupil; these two variables were also analyzed for the districts.

Table 25 presents the basic statistics for per pupil total spending and per pupil total teacher spending. The mean per pupil total spending is $2,206, which is lower than the district-wide mean of $2,327 as reported previously in Table 6. The lower mean is expected here, primarily because the data in Table 25 only include elementary schools and they spend less per pupil than middle/junior high schools. The district-wide mean includes salaries from elementary and middle/junior high schools. When the per pupil mean is compared to the district-wide number for elementary schools (Table 13), the two differ by six dollars. This small difference is due to the elimination of some schools from the school-level analysis. The maximum per pupil spending of $3,626 and the minimum per pupil spending of $1,615 result in a range of $2,011. This range is partly constrained by the cutoff points we established to eliminate outlying values. The range is 4.8 times larger than the one reported for elementary schools at the district level (see Table 13). The larger range is expected because individual schools will show more variation in all data than will district-level numbers that have been averaged across schools. The standard deviation is 265.5 and the coefficient of variation is .12, again both larger than analogous numbers reported at the district level. Finally, because of the schools eliminated from the data, based on outliers or district comments, there are 611 schools and 439,708 students included in the calculation of the per pupil total spending statistics.

Mean per pupil teacher spending is $1,719 and teacher spending is 78% of total spending. The range in per pupil teacher spending is $2,450. This number is not an accurate estimate of the differences in spending among elementary schools because districts used district-wide average teacher salaries in their allocations to the schools in their district. Actual salary numbers would be likely to show more variation. The standard deviation is 232.9 and the coefficient of variation is .14. Due to eliminations of schools on the basis of bad data, 619 schools and 443,752 pupils are included in the data base.

Tables 26 and 27 present basic statistics for per pupil total spending and per teacher spending across schools within each district. These data should be viewed as purely illustrative because all the possible problems with faulty data will be magnified when the data are not averaged across all schools. In addition, it will help to keep in mind the following facts about these data: outliers and bad data cited by districts themselves have been omitted, but other bad data may still exist (for example if a district failed to cite such data); salary numbers are averages for the district and thus the distributions across schools in the districts reflect the underlying differences in positions more than they do differences in salaries; districts allocated different percents of their budgets to the schools and these data show only the allocated amounts. The statistics in Tables 26 and 27 describe the distributions of spending; they do not however explain them. There are numerous reasons why a district would not want perfect equality in the distribution of resources across schools. In later years, when the data are more reliable, some of these reasons can be pursued analytically to see if the data support their existence or not.

The data on per pupil total spending, presented in Table 26, shows that districts vary considerably in a number of ways. First, the size of the districts varies: the smallest number of schools is 11 and the largest is 38 while the smallest number of pupils is 6,467 and the largest number of pupils is 22,341. (Again recall that these numbers differ from the actual numbers because some schools have been eliminated due to bad data.) The statistics that describe variation in the distributions also differ considerably across districts. For example, the lowest coefficient of variation is .06 and the highest is .17.

Table 27 presents descriptive statistics for per pupil total teacher spending. Once again there is considerable variation across districts. For example, the lowest coefficient of variation is .05 and the highest is .19.

The data in Tables 26 and 27 are shown here to illustrate the future possibilities for analysis. Had there been very little variation by districts, there would have been less reason to study further the reasons for the within district variation. It is our judgment that to go further in the analysis of these data is unwarranted because mistakes in data are likely to influence the analysis so much that conclusions will be completely unreliable. At higher levels of aggregation (all schools or districts) bad data will not be so influential.

Table 28 presents the results of regressions with per pupil total spending or per pupil total teacher spending as the dependent variables and percent of pupils in poverty as the independent variable. The format introduced for the district-level analysis is used here as well. (See Table 5 for example). We continue to use a 50 percentage point difference in the poverty level to define a high poverty and a low poverty school. The high poverty school is assumed to have 80% of its pupils in poverty (i.e. qualifying for free lunch) and the low poverty school is assumed to have 30% of its pupils in poverty (i.e. qualifying for free lunch). There is a relatively small and very weak negative relationship between per pupil total spending and poverty; the high poverty school is estimated to receive an allocation that is $15.90 lower than a low poverty school. The small difference between the high and low poverty school shows how small the magnitude of the relationship is. The low simple correlation and coefficient of determination indicates the weaknesses of relationship.

The relationship between per pupil total teacher spending and poverty is slightly larger and stronger than the relationship with per pupil total spending. The high poverty school is estimated to receive $30.70 less than the low poverty school. The simple correlation and the coefficient of determination are low.

The differences indicated by the regression equations show that for the GE budgets allocated to the schools, total spending and teacher spending is slightly tilted against the high poverty districts. This negative relationship could be the result of differences in staffing levels and differences in salary levels across schools. In the next section of the report, we look at positions; here we examine the effect that teachers' salaries have on the relationship.

For elementary schools in our analysis, average teacher salary in 1990-91 is $40,826 and for middle/junior high schools it is $42,096. The results of the school-level regressions of teachers' salary on percent free lunch are shown in Table 29 and they indicate a strong negative relationship between salaries and poverty for both elementary and middle/junior high schools. For the elementary (middle/junior high school) the high poverty district has an estimated average salary of $39,706 ($40,516), while the low poverty district has an estimated average salary of $42,913 ($43,389). The simple correlations are around .5 and although lower than the district-level one of .8, still very strong.

Based on the regression results shown in Table 29, it is clear that one of the reasons for the weak negative relationship between spending per pupil and poverty is the strong negative relationship between salaries and poverty. The weaknesses in the spending relationship may be because the positions are correlated positively with poverty. That is, high poverty districts may receive relatively more positions per pupil, but the positions may be paid at relatively lower rates than in the low poverty districts. We can test this idea in the next section when we examine positions at the school level.

c. Middle/Junior High Schools

This section describes the results of analyses of general education total and teacher spending for middle/junior high schools. Table 30 displays the basic descriptive statistics for the two variables. Mean total spending per pupil is $2,631 and mean teacher spending per pupil is $2,090. Teacher spending is 79% of total. Compared to elementary schools (see Table 25), middle/junior high schools spend more per pupil, although the range between the maximum and minimum spending is about comparable and the disparity as measured by the coefficient of variation is somewhat less. The coefficient of variation for middle/junior high schools is .11 for both spending variables and was .12 and .14 for elementary schools. Both levels of schools spend about the same percentage for teachers based on these data on spending allocated to the schools.

Tables 31 and 32 present basic statistics for each of the 32 community school districts on per pupil total spending and per pupil teacher spending, respectively. As was the case for the elementary schools, these tables for middle/junior high schools are illustrative. Data that has been better checked for errors and better audited is needed before conclusions can be drawn about relationships at the district level. This is the last time in this report that we will show such data. We see from the tables that there are fewer middle/junior high schools and pupils than was true for elementary schools in the community school districts. The number of schools ranges from two (in Districts 3 and 5) to ten (in District 32) and the number of pupils ranges from 1,861 (in District 16) to 9,925 (in District 31). Recall that some schools have been eliminated due to bad data. The ranges and coefficients of variation differ among districts and do not seem to be related to size of the district. Further analysis, to see if the inequality in spending within districts is related to poverty or other variables, awaits future data.

Table 33 presents the regression analyses of the relationships between per pupil spending and poverty for the middle/junior high schools. For both per pupil total spending and per pupil teacher spending, there is a moderately large and moderately strong positive relationship with poverty. For per pupil total spending, the regression coefficient is 349.1, and the high poverty school is estimated to spend $2,725 while the low poverty school is estimated to spend $2,550, a difference of $175 per pupil. The results for per pupil teacher spending are even larger, with an estimated $146 difference between the high and low poverty school, in favor of the high poverty school. The simple correlations are around .25. Strikingly, these results differ substantially from those for the elementary schools (Table 28), where the relationship was a small, weak and negative one. Also in the elementary schools, the teacher relationship showed the larger impact while in the middle/junior high schools the teacher relationship shows a smaller impact. We can see this by looking at the absolute size of the regression coefficients for per pupil total and per pupil teacher spending.

These results are particularly interesting in light of the already discussed negative relationship between average teacher salaries and percent poverty of the middle/junior high schools (Table 29). In order to achieve the positive spending relationships found in Table 33 at the same time that teachers salaries are higher in low poverty schools, the middle/junior high schools would have to put proportionately more positions into the high poverty schools to make up for the teacher salary relationship. The next section will document the extent to which the positions are distributed in such a way.

B. General Education Position Analysis

The analysis of general education budgets showed the strong relationship between salary levels and poverty, and these salary levels influence the budgets of community school districts and schools. By analyzing the actual positions in each community school district and school, as we do in this major section, we are able to analyze the allocation of human resources, controlling for the effects of variations in salaries. For example, we can determine whether the findings of additional resources in certain districts also means that there are additional personnel in those districts.

Recall that the analysis in the prior section focused on budgets and allocations per pupil. The obvious need to examine dollars on a per pupil basis stems from the differences in size across districts and schools. The same conceptual issue needs to be addressed in the analysis of positions. In this section we also use pupils to standardize the analysis of positions, but in this case, we examine pupils per position, rather than positions per pupil. The reason for the use of pupils per position is that for the major personnel resource, teachers, pupils per position can be understood as the number of pupils associated with a teacher. The inverse, positions per pupil (or positions per 1,000 pupils as it is reported in the central board budget publications), is substantially more difficult to interpret and our use of pupils per position does not affect the analysis.[26] Note that for a given number of pupils, when pupils per position increases in size, there are fewer positions for that group of pupils.

Full time positions reported by the Board of Education are contained in the general education and reimbursable position files. There are limitations to the analysis of the general education positions that is presented in this major section. First, only full time positions are included in the data. Second, the limitations reviewed in the beginning of this report hold for this analysis. Third, districts divide certain positions between the general and reimbursable budgets but in these data the position is reported in one file or the other. Fourth, all positions are not included in the data; for example there is incomplete data on paraprofessionals, school aides, and no data on school safety and custodial personnel. For these reasons, a micro analysis of the individual general education positions at the school level is not undertaken. Nevertheless the aggregate analysis of general education positions can help determine how general education budgets are translated into resources.

The analysis in this section follows the same format as the previous section on general education budgets. First, district data are analyzed to determine the distribution among the district office, allocation to schools, and unallocated. Next, the allocations are examined through an analysis of direct and indirect education positions, and by a separate analysis of teachers. Third, the elementary schools and the middle/junior high schools are examined separately, and finally, an analysis is presented at the school-level.

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[26] For example, if a district has 625 teachers and 15,000 pupils, it has 24 pupils per position. The same data lead to 41.67 teachers per 1,000 pupils, which is more difficult to interpret.

1. District-Level Analysis

Full time positions funded by the general education budget for all 32 community school districts are listed in Table 34 according to the nine service type categories included in the data. In addition, total general education enrollment in the community school districts, 625,040, is used to compute pupils per position for each of the position types and the total. Teachers are by far the largest category, comprising 84 percent of the total. There are 21.61 pupils for general education teacher.[27] The ratios for the other positions are larger than for teachers. For example there are 781 pupils for every principal, which approximates schools size because there is roughly one principal per school. For several of the variables such as community relations and other peds, because of the small number of positions the calculation of pupils per position yields a large number. We begin the analysis by assessing the total number of positions in each district.

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[27] Note that pupils per teacher and class size are two different variables. Pupils per teacher is a mathematical calculation dividing pupils by teachers, while class size is a concept based on the way in which pupils are grouped and taught in schools. Because there are teachers who do not have classes (special teachers such as gym or music, for example) class sizes tend to be larger than pupil teacher ratios.

a. Overall General Education Positions

Every general education position is allocated to a school, assigned to the district office, or remains in the unallocated category. Table 35 shows the general education positions that are allocated to either a school or a district office. Close to 97 percent of the positions are allocated. One characteristic of the position data is that in several instances, the sum of the positions allocated to schools and district offices exceeds the total number of positions in the budget. This can be seen for the "counselling" service type where there are 461 counselors budgeted and 466 counselors allocated. Because we define the unallocated category as the difference between positions that are budgeted and positions that are allocated to the school or district, this results in an occasional negative number of positions in the unallocated category.

Before presenting the analysis of pupils per position, the total number of positions in the schools, districts, and unallocated categories for all 32 districts are shown in Table 36. Note in districts 2 and 24 that the unallocated position category is negative because the total number of positions allocated to the schools and the district office exceeds the total number of positions in the budget. The result is that when pupils per position are computed in the unallocated category for these districts, they are computed as negative numbers with large absolute values. Also, in districts 3 and 5, there are no positions assigned to the district offices.[28] Thus, in the analysis, we cannot compute pupils per position for these two district offices (because you cannot divide by zero).

The basic statistics for the district-level pupils per position variables for total district, school allocation, district office, and unallocated are presented in Table 37. For total budgeted positions, the average pupils per position is 18.22, with a maximum of 19.63 and a minimum of 16.19.[29] Because not all positions are allocated to the schools, the school allocation pupils per position is somewhat larger, however the disparity for both total and school allocation pupils per position is comparable to the disparity in the similar dollar figures, based on the coefficient of variation. In terms of actual pupils, the range across the districts in total pupils per position and allocated pupils per position is between three and four pupils. Note that the pupil count is slightly different than the pupil count on the general education budget file.

The mean pupils per position for the district office and unallocated categories are 844 and 419, respectively. The disparity in these categories is larger than for the first two, but data must be interpreted cautiously due to the limitations cited earlier. In particular, the "large" negative minimum for the unallocated category is not very meaningful. Note also that because in two districts there are no positions assigned to the district office, the basic statistics for the pupils per position variable for the district office are computed for 30 districts and 599,166 pupils.

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[28] As we indicated in the previous section, the number of positions in the unallocated category in districts 3 and 5 is relatively high.

[29] For pupils per position, the maximum is the most pupils, thus the least resources or positions.

The values of the four variables for the 32 community school districts are shown in Table 38. The relatively small disparity in the first two columns and the relatively large disparity in the third and fourth columns are evident from this table. The districts with no district office positions (districts 3 and 5) tend to have the lowest number of pupils per position in the unallocated category.

The final issue for the district-level positions is the relationship with poverty. The results of the regression analysis with the pupils per position variables as the dependent variable and percent free lunch as the independent variable are presented in Table 39. For total GE pupils per position, higher poverty districts have lower pupils per position indicating that more positions per pupil are assigned to districts with greater poverty. The difference between the high and low poverty districts for total GE positions is about 2.5 positions per 1,000 pupils. As was shown in the previous section when dollars alone were analyzed, poorer districts receive slightly higher per pupil budgets measured in dollars (see Table 5). This slightly higher figure is the result of more positions per pupil (or fewer pupils per position) who receive a substantially lower average salary.

The regression for school allocation positions per pupil also shows that poorer school receive greater resources in terms of positions. The effect is not quite as large as the effect for total positions (about 1.8 positions per 1,000 pupils), however for both variables the estimated difference between high poverty and low poverty districts is between one half and one pupil per position.

The effects for the district office are not as important or large as the other two variables. Nonetheless, high poverty districts have slightly lower pupils per position ratios than low poverty districts, indicating that there are additional personnel resources per pupil in the district offices of the poorer districts compared to the less poor districts (about .03 positions per 1,000 pupils). The regression estimate for the unallocated pupils per position may be unduly influenced by the two large negative values in the distribution, thus we estimate the regressions without the two districts with the negative values for the unallocated pupils per position. Because of these limitations in the data we cannot have as much confidence in the size of the effect (about one half a position per 1,000 pupils), but the direction confirms the findings from the budget analysis where high poverty districts had higher per pupil unallocated budgets. In this case poorer districts have lower values of pupils per position or higher values of positions per pupil indicating a greater number of positions in the unallocated category.

The major finding is that the district-level total, school allocation, district office and unallocated general education positions are distributed so that relatively more positions per pupil (fewer pupils per position) are found in districts with higher levels of poverty. In the next part we examine direct and indirect components of the school allocation.

b. Direct and Indirect General Education Positions

In this part we use the same conceptual distinction between direct and indirect resources developed in the previous section to examine the distribution of positions that are allocated to the schools, that is the positions that are listed in Table 35. Note that although we are examining school allocations, the analysis is being carried out at the district-level. For the general education positions, we categorize each service type as either direct or indirect as follows:

Direct	Indirect
Teachers	Administration
Counseling	Assistant principal
Other peds	Community relations
Paid leaves	Principal
	Secretary

The basic statistics for direct, indirect, and total school allocation pupils per position are shown in Table 40 where the total school allocation column is repeated from Table 37. The mean direct school allocation pupils per position is 21.66, with a high of 23.84 and a low of 19.44. In general the direct parallels the total, at a higher level of pupils per position. As was the case for indirect budgets, there is greater disparity in the distribution of indirect positions compared to direct positions and the indirect disparity in positions is close to the level of disparity in the budget. The values of the total, direct, and indirect pupils per position variables for the 32 community school districts are displayed in Table 41. The low disparity for the total school allocation and direct school allocation, as measured by the coefficient of variation, can be confirmed, informally, on Table 41 when the values are observed for the 32 community school districts.

The relationships between the total, direct, and indirect school allocation positions per pupil are presented in Table 42. The table shows that more allocated positions per pupil are distributed to higher poverty districts in both the direct and indirect categories. The difference in the direct category translates to about one position for every 1,000 pupils and the difference in the indirect category is about two thirds of a position for every 1,000 pupils in the indirect category. Thus far, all the position analyses have been consistent in the finding that relatively more positions per pupil are in the poorer districts. The final analysis in this part is a separate examination of teachers.

c. General Education Teacher Positions

A separate analysis is warranted of teachers, by far the largest category in terms of numbers of positions. Data are available at the district-level for teaching positions budgeted to the district and teaching positions allocated to the schools and the basic statistics for these two variables, expressed as pupil teacher ratios, are shown in Table 43. The mean pupil teacher ratio for teachers assigned to the schools is 22.35 and the mean pupil teacher ratio for all teachers budgeted to the district is 21.63. The difference between the school allocation and total budget teacher pupil ratio is one and one half teachers per 1,000 pupils. The disparity in the two pupil teacher variables, measured by the coefficient of variation, is small and comparable to the disparity in total and direct pupils per position, as well as to the similar budget figures. This relatively low disparity is again in evidence when the two pupil teacher ratio variables are listed for each district in Table 44.

The relationships between the pupil teacher ratios and poverty are shown in Table 45. We see again a consistent relationship between higher poverty and a higher number of teachers per pupil (or a negative relationship between poverty and pupils per teacher). The estimated difference between high and low districts is about 1.4 positions per 1,000 pupils for teachers allocated to the school, and is about 2.2 teachers per 1,000 pupils for all teachers budgeted to the district. On average this translates to about one to two more teachers per school for the high poverty compared to the low poverty school. Both the size and the direction of these relationships have been consistent throughout the analysis of positions. The final district-level analysis examines the elementary schools separately from the middle/junior high schools.

d. School Allocations at the District-Level for Elementary Schools and Middle/Junior High Schools

In the previous part when the district-level data were analyzed separately by elementary schools and middle/junior high schools, important differences were found by level of school. The basic data on pupils per position for elementary schools and middle/junior high schools are presented in Tables 46 and 47, respectively.

Compared to the elementary schools, the variables are uniformly lower for the middle/junior high schools indicating that there are more positions per pupil (fewer pupils per position) in the middle/junior high schools, which is consistent with the higher levels of spending found in the previous analysis. The difference is between four and five pupils per position for the direct allocation, teaching positions, and total allocation. This difference translates to roughly 9 positions per 1,000 pupils.

The disparity in the variables is higher in all four cases when the elementary schools are compared to the middle/junior high schools. The higher disparity for middle/junior high schools was not found in the spending data. The data for each district are listed in Tables 48 and 49, respectively, for the elementary schools and the middle/junior high schools.

The relationships between the pupil per position variables and poverty are shown in Tables 50 and 51 for elementary schools and middle/junior high schools, respectively. Recall that in the district-level budget analysis, we found that the relationship between per pupil budgets and poverty was different across the two types of schools with elementary school allocations negatively related to poverty and middle/junior high schools positively related to poverty. Tables 50 and 51 show that there is a related difference for the position analysis. In the elementary schools, the district-level analysis shows a small and weak relationship between pupils per position and poverty in the direct, teaching position, and total school allocation categories. The small relationship can be seen by the small difference between the high and low poverty districts and the weak relationship is illustrated by the relatively low coefficients of determination. For middle/junior high schools, there is a larger and stronger relationship between pupils per position and poverty such that poorer districts receive more positions per pupil. The difference between the high and low poverty districts is between 2 and 3 pupils per position which translates to 6 to 7 positions per 1,000 pupils. Thus, in terms of both positions and dollars, for middle/junior high schools, higher poverty districts receive more resources per pupil. The position analysis shows that for elementary schools, there is almost no relationship with poverty, but the lower salaries in the poor districts translates to lower per pupil budgets in poor districts in the elementary schools.

2. School-Level Analysis

In addition to describing the results of the analyses at the school level, we are interested in a particular question. We wish to see if the distribution of positions to low and high poverty schools, in combination with the distribution of average teacher salaries to the low and high poverty schools, is consistent with the observed relationships between overall spending in the low and high poverty schools. Specifically, average teacher salaries are strongly negatively related to poverty; does the distribution of positions mitigate this strong negative relationship so that we can explain the observation that elementary schools have a weak negative spending relationship and middle/junior high schools have a moderate positive relationship? We predict that the position distribution will favor high poverty schools and do so more strongly and in a larger way for middle/junior high schools than for elementary schools.

a. Elementary Schools

Table 52 displays the descriptive statistics for per pupil GE total positions and per pupil GE teacher positions. The pupil number is the total number of registered pupils, conceptually the same one used throughout our analyses thus far. Due to the eliminations of outlying data and bad data cited by the districts, 569 schools and 405,836 pupils are included in the analysis. The mean number of pupils per position is 20.5 for total positions and 23.4 for teacher positions. The range is constrained by the setting of limits on outliers and is 13 for total positions and 15 for teacher positions. The coefficients of variation are identical at .10. Compared to the elementary school spending disparity (Table 25), these disparities are smaller. (The coefficients of variation for elementary school spending were .12 and .14.) Compared to the district-level analysis of positions (Table 46), the disparities at the school-level are higher. This is expected because higher levels of aggregation will generally show lower disparities because differences between schools are averaged.

Table 53 presents the results of the regression analyses of the relationship between pupils per position and percentage of pupils in poverty. Recall that because the dependent variable is pupils per position, a smaller number is better; that is a smaller number means there are relatively more positions available to each pupil. Therefore, a negative relationship with percentage of pupils in poverty shows that higher poverty schools are receiving relatively more positions (or have fewer pupils per positions). The results in Table 53 indicate a small, weak and negative relationship between pupils per position and poverty. The estimated differences between the high poverty and low poverty schools show how small the relationships are. For pupils per total GE positions, the high poverty school has 20.44 pupils per position and the low poverty school has 20.80 pupils per position, hardly a startling difference. In addition, the simple correlations are less than .1, which is indeed very low.

The regression results are consistent with the other findings for elementary schools concerning the relationships with spending and with teacher salaries. The teacher salary relationship is driving the observed negative relationship between spending per pupil and poverty, because as Table 53 shows, the distribution of positions is not strongly enough in favor of the high poverty schools to mitigate the strong salary relationship.

b. Middle/Junior High Schools

Table 54 presents the descriptive statistics for per pupil GE total and teacher spending variables. After the elimination of bad data, 169 schools and 167,877 pupils remain in the analysis. Mean pupils per position are 16.7 for total GE positions and 19.5 for GE teacher positions. The disparities as measured by the coefficients of variation are both .11 and are only slightly larger than those at the district level, which were .10.

Table 55 presents the results of the regressions of the two per pupil position variables on the percentage of pupils in poverty. This relationship is large, moderately strong and negative. The high poverty school is estimated to have 15.92 pupils per total GE position and the low poverty school is estimated to have 17.39 pupils per total GE position, a difference of 1.47 pupils per position. The correlation is over .3, which is moderate. The differences for pupils per GE teacher position are slightly larger and stronger, with a difference of 1.9 pupils per position between the high and low poverty schools and a correlation of close to .4

The regression results help to explain the positive relationship between spending per pupil and poverty that was reported previously in Table 33. Although average salaries are negatively related to poverty in the schools, the distribution of positions is strongly enough in favor of high poverty schools to overcome that salary relationship. As compared to the elementary schools, the salary relationship for the middle/junior high schools is slightly smaller and weaker and the position relationship is significantly larger and stronger. For some reason that can be further explored at a later time, the middle/junior high schools favor the high poverty schools with their GE allocations more than do the elementary schools.

C. Reimbursable Program Budgets

As we indicated in the beginning of the report, community school districts receive dollar allocations in three categories: general education, reimbursable programs, and special education. In this section we analyze the reimbursable program resources which are "earmarked for specific purposes that usually are supplemental to basic instruction."[30] The reimbursable program budgets are composed of five different types of funding: federal entitlement programs, of which the largest is Chapter 1; state entitlement programs, such as PSEN and AIDP; federal competitive funding such as Title VII Bilingual Grants and Magnet School Grants; state competitive grants such as Legislative Grants and Experimental Pre-K funding; and other grants which include funds from foundations.

Table 56 presents the total reimbursable program budgets in these five categories for the community school districts and indicates that the entitlement programs are the largest two categories (88.4 percent of the total reimbursable program budget). The $660 million for reimbursable programs is 41 percent as large as the total for general education programs for the community school districts, $1.594 billion.

The analysis of reimbursable program budgets in this section follows the general outline of the general education budget analysis with two important differences. First, because the programs funded by reimbursable program budgets are not intended to serve all children, there is an issue of the appropriate pupil count to calculate per pupil amounts. As discussed earlier in the report, data are not available on the specific pupils served by each specific program. What is available is a count of "the number of students scoring below minimum standards on reading or mathematics tests," called educationally eligible in the Board's publications.[31] Although this is not the appropriate pupil count for all reimbursable programs, it is a proxy for the target group for the largest types, state and federal entitlement programs. As we describe shortly, several of the analyses of the reimbursable program budgets are carried out with both the educationally eligible and general education pupil counts.

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[30] New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page ii.

Second, as we pointed out earlier in the report, our preliminary analysis indicates that the quality of the reimbursable program budgets data at the school level may not be as high as for the general education budgets. When combined with the imprecise data on pupils served by the reimbursable programs, we conclude that school level (as opposed to district level) analyses for reimbursable program budgets are not appropriate with these data.

First we examine the basic statistics for reimbursable program budgets on per pupil and per eligible pupil bases. When we examine the data on a per pupil basis, we expect to find greater differences across districts because the ratio of pupils to eligible pupils is not identical in each district. Throughout this section of the report, we use per pupil to indicate total pupils and per eligible pupil to indicate only those pupils, defined as above, by the Board of Education. In the 32 districts combined there are 264,831 eligible pupils compared to the 625,040 total pupils, including eligible pupils.

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[31] New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page 3-2.

Table 57 presents the basic statistics for the per pupil reimbursable program budgets for the total district, the school allocation, the district office, and the unallocated amount. One of the most striking conclusions from this table, particularly when compared with the similar table for general education budgets (Table 3), is the smaller share in the school allocation compared to the unallocated and district office components. Only 52 percent of the total reimbursable program budgets are allocated to the schools, compared to 91 percent in the general education budgets. The unallocated category is 34 percent of the total for the reimbursable budgets, compared to 4 percent in the general education budgets. The district office category is 14 percent of the total for the reimbursable program budgets compared to 4 percent for the general education budgets. In fact, in the district office the districts spend more ($153 per pupil) from the reimbursable program budget than they do from the general education budget ($114 per pupil).

Part of the unallocated amount is fringe benefits ($204 per pupil) and lump sum ($56 per pupil); these two categories comprise 72 percent of the unallocated reimbursable budgets. These two budget categories are not comparable with the general education budgets, for example fringe benefits are not included in the district allocations in the general education budgets. Note that $97 per pupil in the unallocated category is neither fringe benefits nor lump sum.

The question needs to raised for future research whether there may be a problem in the share of the reimbursable funding that supports services that directly benefits pupils. Because the district office spending has not been routinely reported to the public in the past and because reimbursable program spending may be scrutinized differently from general education spending, there may be spending patterns that are not totally consistent with the objectives of the funding. We emphasize that these are not definitive findings, but are questions that are raised by the findings.

A second conclusion from Table 57 is the wide variation in reimbursable program budgets per pupil across the community school districts, some of which is due to the variation in eligible pupils across districts. The effect of differences in the percentage of eligible pupils is controlled for to some degree by using eligible pupils as the pupil number, and the basic statistics with per eligible pupils are shown in Table 58. The mean total reimbursable program budget per eligible pupil is $2,494, very close to the average general education budget per pupil of $2,550. In a very crude sense, we can conclude that the available budget for the eligible pupils, who comprise 42 percent of the total, is roughly twice the available budget for other students. Of course, with this research we are not in a position to determine whether twice the resources actually are used to benefit the eligible pupils. Note that because we are dividing the amounts in all four categories in Tables 57 by total pupils, and all four categories in Table 58 by total eligible pupils, the percentages in the total, school, district office, and unallocated categories are identical in the two tables.

Despite the use of eligible pupils in Table 58, the variations in reimbursable budgets per eligible pupil, as measured by the coefficient of variation, are still relatively large in the total reimbursable and school allocation categories when compared to similar statistics for the general education budgets where both coefficients of variation were .05 or below. The reverse is true for the district office and unallocated categories where the variations per eligible pupil are less for reimbursable budgets than for general education budgets. This suggests that perhaps whatever practices have led to the relatively large district office reimbursable budgets, more similarities may be present in most districts than for general education budgets.

The district by district reimbursable budgets for total, school, district office, and unallocated categories are displayed in Table 59 on a per pupil basis and in Table 60 on a per eligible pupil basis. As was the case for the general education budget, there is a negative correlation between the per pupil unallocated and district office budgets suggesting that in some cases the uses for the two categories may be serving the same purposes.

The final and perhaps most interesting questions that we address for the total, school, district office, and unallocated reimbursable budgets is the relationships between the per pupil and per eligible pupil budgets and poverty. The regressions with poverty are shown on a per pupil basis in Table 61 and on a per eligible pupils basis in Table 62.

In this analysis, the meaning of the regression results varies substantially depending on the pupil measure. In Table 61 we are assessing the degree to which reimbursable budgets per pupil (not eligible pupil) vary with poverty. Because we know that the percentage of eligible pupils, according to the Board of Education definition, will be higher in districts with higher levels of poverty, we expect that on a per pupil basis, there will be higher reimbursable programs per pupil in districts with higher levels of poverty. That finding is confirmed in Table 61. For total district-level reimbursable budgets per pupil, there is a strong and large relationship with poverty. The coefficient of determination is .738 and the high poverty district (80 percent free lunch) receives $865 per pupil more than the low poverty district (30 percent free lunch). There are higher reimbursable program budgets in districts with higher levels of poverty. The direction of the effect is the same for per pupil school allocations, district office, and unallocated reimbursable budgets, although the strength and size of the effect is not as large as for the total. Of the $865 difference across high and low poverty districts for the total reimbursable budget per pupil, less than half, $396.50, is the school allocation, and a similar amount, $357, is the unallocated portion.

The regression results for reimbursable budgets per eligible pupils are presented in Table 62 and the meaning is different than for the per pupil regressions. If every eligible pupil receives the same amount of reimbursable funds, then the regressions would show no relationship between reimbursable budgets per eligible pupils and poverty. If, for what ever reasons, eligible pupils in higher poverty districts receive higher funding, perhaps because there are some programs where funding increases as the concentration of need increases, then we would expect to find a positive relationship between reimbursable program budgets per eligible pupil and poverty. The results in Table 62 indicate that there is a modest relationship between reimbursable program budgets per eligible pupil and poverty for the total amount and for the unallocated amount. A high poverty district receives $2,611 per eligible pupil compared to $2,238 in a low poverty district. But there is no relationship between reimbursable program budgets per eligible pupil and poverty for the school allocation and the district office; the effect is the result of the higher levels of reimbursable program budgets per eligible pupils with higher levels of poverty for the unallocated amounts. This finding may indicate that in the high poverty districts there is a need to provide more funding for school services such as non-educational services or shared services across schools. Future research will be needed to confirm this explanation.

The second analysis of reimbursable program budgets focuses on the differences in the district-level allocations across the five different reimbursable program types: federal entitlement funding, state entitlement funding, federal competitive funding, state competitive funding, and other funding. We expect differences between entitlement and competitive grants, because the former should be driven by measures of need, while the latter should take into account the activities proposed by the district. In addition, this analysis compares state and federal funding for both entitlement and competitive programs.

Table 63 presents the basic statistics for the five types of reimbursable program funding on a per pupil basis. The two entitlement programs are, by far, the largest, with the federal entitlement exceeding the state entitlement by $122 per pupil. The range in funding per pupil is quite large for the two entitlement and two competitive grant programs. Note that for both competitive programs, the minimum per pupil amount is close to zero. Even though the denominator is all pupils, the variability in the competitive programs measured by the coefficient of variation is substantially larger than the variability in the entitlement programs. We expect the variability in the entitlement programs to decrease when we use eligible pupils in the denominator, but it is not clear that such a change should occur for the competitive grants.

The basic statistics for the five program types are displayed in Table 64 on a per eligible pupils basis. For the two competitive programs, the variability as measured by the coefficient of variation is lower on a per eligible pupil basis than was the case on a per pupil basis. In both cases the coefficient of variation is reduced by more than 50 percent. Reductions in the variability in the competitive programs do not occur when the pupil basis is changed to eligible pupils, and in fact the variability in federal competitive programs increases. Also when the pupil basis changes to eligible pupils, the minimum amounts increase substantially for the entitlement programs, especially the state programs.

The per pupil and per eligible pupil amounts for the five program types are shown for each district in Tables 65 and 66, respectively. The wide variability in the competitive programs is quite striking when the data are displayed in this format, and it suggests that districts that are successful in securing competitive funding can add meaningful amounts of funding.

The regression analyses that assess the relationship between per pupil funding and percent poverty, measured by percent free lunch, are shown in Table 67. The federal competitive programs are the most strongly related to poverty judging by a coefficient of variation that is close to .9. The effect is also large; pupils in high poverty districts receive over $600 more on a per pupil basis than pupils in low poverty districts.[32] The relationship between the per pupil state entitlement reimbursable programs and poverty is also strong and large, though less so than for federal entitlement reimbursable programs.

The regression results in Table 67 confirm that the relationship with poverty is different for the competitive programs compared to the entitlement programs. Federal competitive reimbursable programs per pupil are negatively related to poverty; lower poverty districts receive more on a per pupil basis. The state competitive programs per pupil are positively related to poverty as are the other programs per pupil, although the absolute size of the effects in both cases are small.

The regressions for the reimbursable programs per eligible pupil are shown in Table 68. The federal entitlement program is the only one of the five categories where per amounts increase with higher levels of poverty, again illustrating the strength of poverty in determining the allocation of federal entitlement programs. Although there is a negative relationship with poverty for the state entitlement programs per eligible pupil, the size of the effect is neither relatively large nor strong.

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[32] A different aspect of the relationship between federal entitlement reimbursable programs per pupil and poverty is the fact that the intercept in the equation is negative (federal reimbursable programs per pupil = -227.6 + [1,264 * percent free lunch]. The steep slope, the negative intercept and the high coefficient of determination all indicate that the per pupil federal reimbursable programs are highly related to poverty. In none of the other four regressions is the intercept negative.

Four broad conclusions emerge from this analysis of reimbursable program budgets. First, the size of the reimbursable programs is substantial when examined in relation to the general education budget. Thus among the community school districts, these programs have the potential to direct resources to meet specific needs. Second, for the reimbursable program budgets, the district office portion is relatively large and the unallocated portion, after removing fringe benefits and lump sum, is still close to $100 per pupil. Clearly more research is needed to understand these patterns. Third, entitlement grants are allocated differently from competitive grants. This was shown by the differences in the variability of the funding and the differences in the relationships with poverty. Fourth, for the two largest reimbursable programs, the federal and state entitlement programs, the allocations on a district level are strongly related to poverty.

D. General Education Plus Reimbursable Program Budgets

In this section we examine the district-level budgets for general education and reimbursable programs added together. Although the reimbursable program funding is intended for specific programs and pupils, the pupils who benefit from this funding also receive services that are funded by general education dollars. Thus, it is useful to analyze the combined effects of the general education and reimbursable program budgets.

In the separate analyses of general education and reimbursable programs in the previous sections of this report, different pupil counts were used; all general education pupils were used with general education funding, and general education as well as a count of "entitled" pupils were used with the analysis of reimbursable program budgets. When general education and reimbursable program funding are added together in this section, the pupil count is all general education pupils. Neither of the two pupil counts is ideal for the analysis of general education and reimbursable programs, combined. Of the two pupil counts, the number of general education pupils is the broadest based measure and is thus used in this analysis, although it is imperfect because it does not reflect differential pupil needs.[33]

The basic statistics for the district level general education and reimbursable program budgets (GE plus RE) per pupil are shown in Table 69. Note that the means are the sum of the means from the separate analyses, for example the total district budget per pupil in Table 69 is the sum of the general education budget shown in Table 3 and the reimbursable program budget shown in Table 57.[34] The difference between the mean district GE plus RE budget per pupil and the mean GE plus RE school allocation per pupil, $733, is due to the district office budgets ($267 per pupil) and the unallocated amounts ($467 per pupil). The range in per pupil amounts is $1,853 for total district budgets and $1,209 for school allocations. The more comprehensive measure of the disparity, the coefficient of variation, shows greater dispersion for the GE plus Re budgets, combined, than for the general education budgets alone, .03 to .05. This is expected because of the effect of using the general education pupil count for the combined funding. But the dispersion is substantially less than the reimbursable funds alone, .34.

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[33] In future analyses of general education and reimbursable program funding combined, it may be useful to develop weighted pupil counts that combine general education pupils with pupils who are intended to benefit from the reimbursable programs.

The per pupil RE plus GE district budgets and school allocations for the 32 community school districts are shown in Table 70. Note that although the maximum for the total district GE plus Re budget per pupil is $4,783 (in District 1), there are only five districts over $4,000. At the low end, there is only one district under $3,000, District 26 at $2,930. Thus, although the maximum and minimum differ substantially, the variability among all 32 districts is significantly less than suggested by these extreme values. A similar conclusion can be drawn for the per pupil GE plus RE school allocations.

The results of the regression analyses of GE plus RE funding per pupil with poverty are shown in Table 71. For the total district GE plus RE funding per pupil, there is a strong relationship with poverty as evidenced by the high simple correlation and coefficient of determination. In addition there is a relatively large effect because the high poverty district receives $885 more than the low poverty district. We know from the previous analyses that these differences are almost entirely due to the effects of the reimbursable program budgets.

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[34] The $3,607 shown for the mean in Table 69 differs from the sum by $1 due to rounding.

Table 71 also shows the results of the regression analysis for the per pupil GE plus RE school allocations. Compared to the total GE plus RE district budgets, the relationship with poverty are somewhat weaker and smaller, but there is a substantial relationship nonetheless. School allocations in high poverty districts are on average $340 higher per pupil than school allocations in low poverty districts. The relationship is smaller for the per pupil GE plus RE school allocations compared to the per pupil total GE plus RE district budget because of the strong relationship with poverty of the district office and unallocated components of the reimbursable program budgets that are not included in the school allocations.

To focus the analysis more directly on instructional activities, the portion of the GE plus RE budgets that are devoted to teachers' salaries are also examined in this section. The GE plus RE teachers' salary district budget per pupil is the portion of the GE plus RE total district budget that is composed of teachers' salaries. Similarly, GE plus RE teachers' salary school allocations per pupil are the portion of the school allocations that are composed of teachers' salaries. The basic statistics for the GE plus RE teachers' salary district budget and school allocations on a per pupil basis are shown in Table 72. The mean value of GE plus RE teachers' salary district budget per pupil, $2,320, represents 64 percent of the total district budget. The mean value of GE plus RE teachers' salary school allocations per pupil, $2,189, represents 76 percent of the total school allocation. The difference between the two teachers' salary variables, $131 per pupil, represents the component of teachers' salaries that is not allocated to the schools.

Despite the inclusion of the reimbursable program budgets, the dispersion in the two per pupil teachers' salary variables as measured by the coefficient of variation, .07, is relatively small and this is confirmed visually by the values of the two teachers' salary variables for the 32 community school districts that are displayed in Table 73. For example 28 of the 32 community school districts have values between $2,100 and $2,500 for the GE plus RE teachers' salary district budget per pupil.

The analyses of the relationships between the two teachers' salary variables and poverty are presented in Table 74. On a per pupil basis, higher poverty districts have larger budgets for teachers' salaries from the combined general education and reimbursable budgets for the total district and school allocations. But it is important to note that the differences between the high and low poverty districts for teachers' salaries are substantially less than the total district difference or the school allocation difference. The total GE plus RE district budget per pupil in higher poverty district is $884 greater than the lower poverty district; the GE plus RE school allocation per pupil is $340 higher in the high compared to the low poverty district; the GE plus RE teachers' salary district budget per pupil is $230 higher in the high compared to the low poverty district; and the GE plus RE teachers' salary school allocation per pupil is only $146 higher in the high compared to the low poverty district.

Based on this research we are not in a position to state whether this finding is good or bad. But the finding certainly raises the question of whether it is appropriate for such a small amount of the difference in GE plus RE budgets between the high and low poverty districts to be devoted to differences in teachers' salaries. We know from other findings in this study that the difference in number of positions will be larger than salary between high and low poverty districts because the high poverty districts have individual teachers with lower salaries. But whether such a small difference should result in the budget for teachers' salaries is an important resource allocation question.

IV. ANALYSIS OF ACTUAL COMMUNITY SCHOOL DISTRICT AND SCHOOL EXPENDITURE DATA

There is no doubt that we can learn a considerable amount about district and school resource allocation through an analysis of the school spending plans, what we have explained are budgeted amounts. Yet, to understand fully district and school resource allocation we will need to know the relationships between the actual expenditures at the district and school levels and the spending plans.

A. General Education Expenditures

We have obtained the actual school and district expenditures for the 1991-92 school year from the Board of Education. These data were finalized in December 1992, about five months after the close of the fiscal year. The total amount of general education expenditures for the 32 community school districts is $1,629.5 million. This is $35.1 million greater than the $1,594.4 million for the general education budgets (see Table 1). According to the Board of Education, the difference is due largely to the (net) $30.1 million that was added to the district budgets after January 30. The remaining difference is caused by minor adjustments and variances between the spending plans and actual expenditures.[35]

In this section we analyze general education expenditures, first at the district level and second at the school-level.

1. District-Level General Education Expenditures

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[35] Information was provided by Ms. Judith Solomon, Deputy Budget Director, New York City Board of Education.

General education expenditures are organized by schools and other accounts within districts. To obtain total district expenditures, we add together all school and other accounts within the district. These total general education expenditures are displayed in the third column of Table 75. The first column displays the district number, the second presents the total general education budget, and the fourth shows the difference between the general education expenditures and the general education budget. Finally, the fifth column of Table 75 lists the general education expenditures less budget on a per pupil basis.

In every case except in district 8, general education actual expenditures exceed general education budgets. In the 31 districts where the difference is positive, it ranges from a low of $18,958 in district 7, to a high of $3,108,674 in district 31. As indicated above, the higher actual compared to the budget is primarily due to positive net allocations to the districts after january 30. In district 8 the budget exceeds the expenditures by $897,643 suggesting substantial underspending.

Table 76 presents the basic statistics for the total general education expenditures less budget (column 4 in Table 75) and the per pupil total education expenditures less budget (column 5 in Table 75). Note that the total general education pupil count for the 32 community school districts, 620,252 as shown on Table 76, is slightly smaller than the general education pupil count used for the budget analysis, 625,040.[36]

The mean for the total expenditures less budget is $1.218 million, which translates to $56.6 per pupil. The per pupil figures ranges from $123.1 in district 1 to -$47.6 in district 8. The coefficients of variation for both the total and the per pupil amounts are around .6 and this suggest that there is considerable variation in the expenditure less budget figures.

The results of the regression analysis with per pupil expenditure less budget as the dependent variable and percent free lunch as the independent variable are shown in Table 77. The regression shows that the per pupil expenditure less budget figure is negatively related to poverty; lower poverty districts are likely to have expenditures exceed the January 30 budget figure on a per pupil basis by a greater amount than higher poverty districts. The estimate for the high poverty district (80 percent free lunch) is $40.3 per pupil and the estimate for the low poverty (30 percent free lunch is $80.8 per pupil. At this time we do not have a firm explanation for the relatively higher expenditures compared to budget in the lower poverty districts. Because the Board of Education reported that the additional allocations that occurred after January 30 were on a per pupil basis, one possible explanation is relatively larger under-spending compared to budget in the poorer districts.

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[36] The Board of Education listed a slightly different pupil count on the budget and expenditure files. We use the pupil count from the expenditure files when analyzing the expenditures and the expenditure less budget data, and the pupil count from the budget files when analyzing the budget data.

For the remainder of the district-level analysis of expenditures, we follow the approach used in the analysis of the spending plans. When the tables in this section that assess expenditures can be compared to similar tables for budget data, they will be noted in parentheses.

Recall that for general education budgets at the district level, the total district budget was divided among school allocations, district offices, and unallocated amounts (see Table 3). By the end of the fiscal year when the expenditures were calculated, by definition no expenditures can be unallocated; they must be spent somewhere. For purposes of this study, we divided general education expenditures into two groups: expenditures allocated to the schools, and district office expenditures. Because specific expenditures were allocated to individual schools, we assumed that the remaining expenditures were spent at the district level, in the category we have called district office. We acknowledge that our findings depend on the validity of these definitions, but they are the only realistic definitions permitted by the available data.

Table 78 presents the basic statistics on general education per pupil district expenditures, school allocation expenditures, and district office expenditures. When these statistics are compared to the comparable budget data (see Table 3), the higher per pupil expenditures compared to budget and the allocation of most of the unallocated category to the schools becomes apparent. That is, based on the expenditure data, the unallocated budgetary amounts were assigned to individual schools. The coefficients of variation displayed in Table 78 show that the disparities in the per pupil total, school allocation, and district office expenditures are virtually the same as the comparable figures for the budget data.

Table 79 provides a different way of viewing the relatively low disparities in the per pupil district-level expenditures by displaying the values for all 32 community school districts. Note that in terms of total per pupil general education expenditures, district 1 is the highest and district 16 is the lowest. District 1 was the highest for general education per pupil budgets (see Table 4), but district 22 was the lowest on a budget basis.

The relationships between per pupil general education expenditures and poverty are displayed in Table 80. Whereas per pupil general education district-level budgets (Table 5) showed a small and weak positive relationship with poverty (higher per pupil general education budgets in poorer districts), the relationship with per pupil general education expenditures with poverty is relatively small and weak in a negative direction. That is, for per pupil general education expenditures, high poverty districts are spending about $39 less per pupil than low poverty districts. In part, this is the result of the negative relationship between expenditures-less-budget and poverty that was presented in Table 77.

Table 80 shows that the negative relationship between per pupil general education district-level expenditures and poverty is composed of two opposing relationships; a negative relationship between per pupil general education school allocation expenditures and poverty and a positive relationship between per pupil general education district office expenditures and poverty. Thus, in terms of the expenditures that are reaching the schools, the negative relationship is stronger and larger than for total expenditures. Based on the regression analysis, for school allocation expenditures, the high poverty districts (80 percent free lunch) spend $62 less per pupil in the schools than the low poverty districts (30 percent free lunch) although the high poverty district spends $23 more per pupil in the district office. These relationships are slightly larger and stronger than the comparable findings for the budget (see Table 5).

The next analysis of expenditures examines the breakdown of school allocation expenditures between direct and indirect amounts, using the identical definition from the budget analysis. All administrative expenditures are coded as indirect, and the remaining expenditures in early grade, elementary, junior high school, bilingual, after school, and other are coded as follows:[37]

---

[37] Note that the sum of the direct plus the indirect expenditures equals the school allocation expenditures.

Direct	Indirect
Counseling	Administration
DC 37 Paras	Assistant principal
Lab specialist	Community relations
Lump sum	Extended use
Other hourlies	Principal
OTPS	School guards
Paid leaves	School aides
Per diem	Secretary
Per session	
Prep period	
Teacher	
Uft paras	

The basic statistics for per pupil general education direct and indirect expenditures are shown in Table 81. Compared to the general education direct and indirect budget figures (see Table 6), the expenditures are seven percent higher for school allocation, direct, and indirect expenditures. Moreover, compared to the budget data, the disparity in per pupil expenditures is slightly lower for the total school allocation and direct school allocation, and more substantially lower for indirect school allocations. The per pupil general education total, direct, and indirect expenditures are shown for each district in Table 82, and here it is interesting to note that the district 1 which has the highest value for indirect does not have the highest value for direct which is in district 15. These are the same districts that have the highest values for the budget figures (see Table 7). The lowest values for the expenditures are in district 16 for direct and district 22 for indirect, again the same districts from the budget data.

The relationships between per pupil general education direct and indirect school allocation expenditures and poverty are shown in Table 83. The relationships are similar to those for the budget data (see Table 8); per pupil direct expenditures are negatively related to poverty and per pupil indirect expenditures are positively related to poverty. For example, the high poverty districts (80 percent free lunch) spend $97 less per pupil on the direct expenditures than the low poverty districts (30 percent free lunch), and the high poverty district spends $35 more per pupil on the indirect expenditures. This compares to $100 and $44 for the direct and indirect budget figures, respectively (see Table 8).

The results of the three analyses show that on a per pupil basis in the general education category, high poverty districts spend $39 less than low poverty districts in total, spend $63 less in the schools, and spend $97 less on direct school expenditures. Where the poor districts spend more is in the district offices ($23) and on indirect expenditures ($70).

Because expenditures for teachers' salaries are the largest single item of expenditure, it is useful to examine these expenditures separately. Table 84 presents the basic statistics for two district-level variables: per pupil total general education expenditures for teachers' salary and per pupil general education teachers' salary allocated to the school. The means of the teachers' salary variables are $1,891 and $1,867 for total and school allocation, respectively, indicating that almost all of the expenditures for teachers are allocated to schools which was the same finding from the budget data (see Table 9). The coefficients of variation for the two teachers' salary variables are relatively low and comparable to the findings from the budget data.

Individual values for the teachers' salary variables for each district are displayed in Table 85. District 31 has the highest value for per pupil total teachers' salary and district 15 has the highest value for teacher' salary allocated to the schools. The lowest values for the two variables are both in district 12. Note that these are somewhat different districts than were at the maximum (districts 7 and 15) and minimum (districts 6 and 22) for the budget data (Table 10).

The relationships between the per pupil teachers' salary variables and poverty are shown in Table 86. In both cases the poorer districts have lower per pupil teachers' salaries, with a somewhat larger effect, $85, than for the school allocation $70, when the high poverty (80 percent free lunch) district is compared to the low poverty (30 percent free lunch) district. Note that the size is close to the results from the budget data (see Table 11), however for the budget variables the effect was larger for the school allocation ($75) compared to the total ($64). Recall the findings in the previous budget analysis (Table 12) showed that the relative salary levels for individual teachers (higher in low poverty districts) explain a substantial amount of this difference.

The final district-level assessment of general education expenditures examines separately the per pupil expenditures in elementary schools and middle/junior high schools. Table 87 presents the basic statistics for the per pupil direct, indirect, teachers' salary and total school allocation expenditures for elementary schools and Table 88 shows the same variables for middle/junior high schools. The results are generally comparable to the findings from the budget analysis (see Tables 13 and 14), except the per pupil school allocation expenditures in the elementary schools are 6 percent higher than the budget figure compared to 9 percent for the middle/junior high schools.

For all four variables, the disparities are somewhat smaller for the elementary schools compared to the middle/junior high schools. While the disparities in the middle/junior high schools for the expenditure variable are similar to the disparities from the budget data, the expenditure disparities for the elementary schools are somewhat lower than the comparable budget data. The expenditure variables for all districts for elementary schools and middle/junior high schools are shown in Tables 89 and 90, respectively. For the total school allocation expenditures, the maximum values are in district 3 for elementary schools and district 15 for middle/junior high schools; the minimum values for middle/junior high schools are in district 16 for elementary schools and district 3 for middle/junior high schools.

The relationships between the general education expenditure variables and poverty are presented in Tables 91 and 92, respectively. The specific finding from the budgetary analyses (see Tables 17 and 18) that resources in the elementary schools are negatively related to poverty while resources in the middle/junior high schools are positively related to poverty are supported by the expenditure data. For elementary schools three expenditure variables are negatively related to poverty; total school allocations, teachers' salary expenditures, and direct school allocations; leaving only indirect school allocation expenditures positively related to poverty. In the middle/junior high schools all four expenditure variables are positively related to poverty. Moreover, the size and strength of the relationships are relatively strong compared to the other findings from the district-level analyses. For example, for total school allocation expenditures pre pupil, high poverty districts (80 percent poverty) spend $221 per pupil more than low poverty districts (30 percent poverty). The effect in the opposite direction for elementary schools is $120 with high poverty districts spending less.

2. School-Level General Education Expenditures

In this section, we analyze general education expenditures for elementary and middle/junior high schools. We begin with a discussion of the data's quality, and then move to an analysis of the differences between the budgeted and expenditure data. Finally, we report findings about the elementary and then the middle/junior high schools.

a. Data Limitations

Schools are eliminated from the data base containing actual expenditure numbers for one of three reasons related to the quality of the data. Table 93 lists all these schools. First, just as we did for budgeted data, we eliminate any school that the community school district identifies in the written reports as having problems. There are nine of these schools, but one is not in the expenditure data base. Second, we eliminate all schools whose expenditures per pupil are outside the limits we established in the budget data analysis. For total expenditures per pupil, these limits are $3,700 and $1,600 per pupil. Table 93 lists the 17 schools that are eliminated because of outlying data.[38] Third, we eliminate four schools that have student counts of zero.

When we compare the schools that are dropped from the expenditure data base, Table 93, with those that are dropped from the budget data base (Table 23), we see that only five of the schools eliminated on the basis of outlying data are the same. All the schools eliminated on the basis of district comments are identical by definition between the two data bases. There are no schools with zero pupil counts in the budget data base and so none is eliminated on that basis.

---

[38] In the analysis that follows, different limits are used for teacher salary expenditures. These limits are $3500 and $1000 per pupil, the same amounts that were used in the analyses of budget data. A slightly smaller number of schools are eliminated in the teacher salary analyses.

b. Comparison between Budgeted and Actual Data

Tables 94 through 97 summarize the relationships between the budgeted spending and the actual expenditures per pupil for elementary and middle/junior high schools. For these comparisons, schools have been dropped if they are on the list on Table 93.[39] On average, actual expenditures are higher than budgeted ones, for both total and teacher spending per pupil and for both elementary and middle/junior high schools. The elementary schools have a lower average difference, but a larger variation across schools than do the junior/middle high schools. For example, Table 94 shows that the range of differences in actual and budgeted total spending per pupil is $3,291 for elementary schools, with a coefficient of variation of 1.68. For middle/junior high schools, the first column of Table 95 shows that the comparable numbers are $1,781 and 0.89. The same pattern of lower average differences but greater variation for elementary schools as compared to junior/middle high schools holds for teacher spending as well. (See column two of Tables 94 and 95.)

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[39] The number of schools with data that are outliers on the basis of per pupil teacher expenditures is slightly different from the list in Table 93. The number based on teacher expenditure outliers is used in the analysis of actual expenditures, but for the analysis of actual versus budgeted amounts, we have kept the school and student counts identical for total and teacher variables.

The positive average difference between actual and budgeted spending may result from a number of sources, including: i) unallocated amounts were allocated to the schools in the expenditure data ii) district office budgeted amounts were allocated to the schools in the expenditure data iii) more funds became available between late January 1992 when the budgets were put together and the end of the fiscal year, when the expenditure data are reported.

A question of interest regarding the positive average difference between actual and budgeted spending is whether there is any relationship between the size of the difference and the degree of poverty in a school. That is, do the higher poverty schools have a greater difference between their expenditures and their budgets than the lower poverty schools? The regressions reported in Tables 96 and 97 address this question.

Table 96 reports the regression results for the elementary schools. There is a weak negative relationship between percentage of pupils receiving free lunches and actual expenditures minus budgeted amounts per pupil (both total and teacher variables). On average, a low poverty school (as measured by the free lunch variable) would receive $48.45 more per pupil in total expenditures minus budgeted amounts than a high poverty district. This finding should be reflected in a larger negative relationship between actual expenditures per pupil and poverty than was present in the budgeted data.[40]

Table 97 reports the regression results of differences between actual expenditures and budgeted amounts, and poverty across schools for the middle/junior high schools. The relationships are basically not significant; the correlations are .015 and less than -.01. The regression coefficients are small, the one for differences in total expenditures being positive and the one for differences in teacher expenditures being negative. Because the correlations are low and the coefficients are small, we would expect the relationships between expenditures per pupil and poverty across middle/junior high schools to stay about the same as they were for the budgeted numbers.

c. Elementary Schools

Table 98 presents the basic descriptive statistics for per pupil general education total expenditures and teacher expenditures for elementary schools. All schools with expenditures lying outside the per pupil expenditure limits have been dropped from the data base.[41] As compared to the budget numbers in Table 25, the mean expenditures per pupil are higher and the variations are lower. The coefficient of variation for total expenditures per pupil is 0.10 and whereas for budgeted spending per pupil it is 0.12. Likewise for teaching expenditures per pupil, the coefficient of variation is 0.14 and for budgeted teacher spending per pupil it is 0.12.

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[40] The budgeted data showed a negative relationship for elementary schools and the results reported in Table 96 should strengthen that relationship when actual expenditures are substituted for budgeted spending.

[41] Different limits were used for total expenditures per pupil and teacher expenditures per pupil, leading to slightly different numbers of schools and pupils in the data bases for the two variables.

Table 99 reports the results of regressions of expenditures per pupil on percent of pupils in poverty. The regressions are shown in the way that has become standard for the report. They illustrate a moderately weak and negative relationship between total expenditures per pupil (teacher expenditures per pupil) and percent of free lunch pupils. As compared with the results using budgeted spending (reported in Table 28), actual expenditures show a stronger and larger negative relationship. For example, for total expenditures per pupil, a 50 percentage point difference in the poverty level between schools results in a $75.30 difference in expenditures, with a correlation of -.163. For the comparable budgeted numbers, there is a difference of $15.30, with a correlation of -.032. These results were predictable, given the regressions of differences in actual and budgeted expenditures and poverty, reported earlier. Even though the actual expenditure numbers show a stronger relationship than the budgeted expenditure numbers, both sets of numbers point to a modestly negative relationship between expenditures (and budgets) and poverty.

c. Middle/Junior High School

Table 100 reports descriptive statistics on total and teacher expenditures per pupil for middle/junior high schools.

Compared to the results for the budgeted spending (Table 30), the mean amounts are higher and the variation, as measured by the coefficient of variation, is approximately the same.

The results of the regression analyses, as reported in Table 101, are remarkably similar to those for the budgeted spending (Table 33). They both show moderately strong, positive relationships between expenditures per pupil and percentage of free lunch pupils. While the elementary school distribution of general education funding is weakly negative with respect to poverty, the middle/junior high school distribution is stronger in a positive direction.

3. Conclusions for General Education Expenditures

For the most part, the findings from the analysis of general education expenditures parallel those from the analysis of budgetary data in the form of January 30 spending plans. Our analysis showed that for the general education category, actual expenditures, whether measured at the district or school levels, were higher than the (January 30) budgets.[42] For the district level, the higher expenditures compared to budget were largely the result of additional funds being made available to the districts. For the school level, the availability of these funds played a small role in the higher expenditures, but the larger factor was the allocation to the schools of most of the amounts that were unallocated as of January 30.

At the district level, the difference between per capita total general education expenditures and budgets was negatively related to poverty, although the effect was not large. That is, high poverty districts expenditures compared to budget were about $40 per pupil less than in high poverty districts. The school-level analysis showed that this relationship with poverty was attributable to elementary schools, but not middle/junior high schools.

The findings from district-level analysis of per pupil general education expenditures indicated that the disparities in expenditures were comparable to the budget figures. In most cases, the more inclusive, larger expenditure variables had similar and relatively small disparities. For example, the coefficients of variation for per pupil total district expenditures, total school allocation expenditures, and direct school allocation expenditures were .04 suggesting only small differences across the 32 community school districts. There were larger disparities on the less inclusive, smaller variables, for example the district office expenditures and indirect school allocation expenditures.

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[42] For the remainder of this concluding section, we refer to the january 30 budget figures simply as the budget figures. We do not continually remind the readers that the budgets were for a point in time five months removed from the end of the fiscal year.

The district-level analysis also showed that overall in the district there was a negative relationship between per pupil expenditures and poverty that varied in its strength depending on the specific variable. For the total district expenditures, the difference between the high and low poverty districts was about $39. The strongest negative relationships were for total school allocation expenditures, direct school allocation expenditures and teachers' salaries, where the differences between the high and low poverty districts were $63, $97, and $70, respectively. From the previous research we know that the differences in individual salaries for teachers are important explanatory factors in these findings.

Finally, we found from both the district-level and the school-level analyses that the distribution of expenditures is not the same in elementary schools as it is in middle/junior high schools. In fact in middle/junior high schools, all expenditure variables are positively related to poverty; higher poverty middle/junior high schools spend more per pupil than lower poverty middle/junior high schools. It is thus in the elementary schools where school allocation expenditures, direct school allocation expenditures, and teachers' salary expenditures are negatively related to poverty. Clearly it is essential to use future research to understand why these differences between the elementary and middle/junior high school have emerged.

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EQUITY IN THE FUNDING OF PUBLIC ELEMENTARY AND MIDDLE SCHOOLS IN NEW YORK CITY

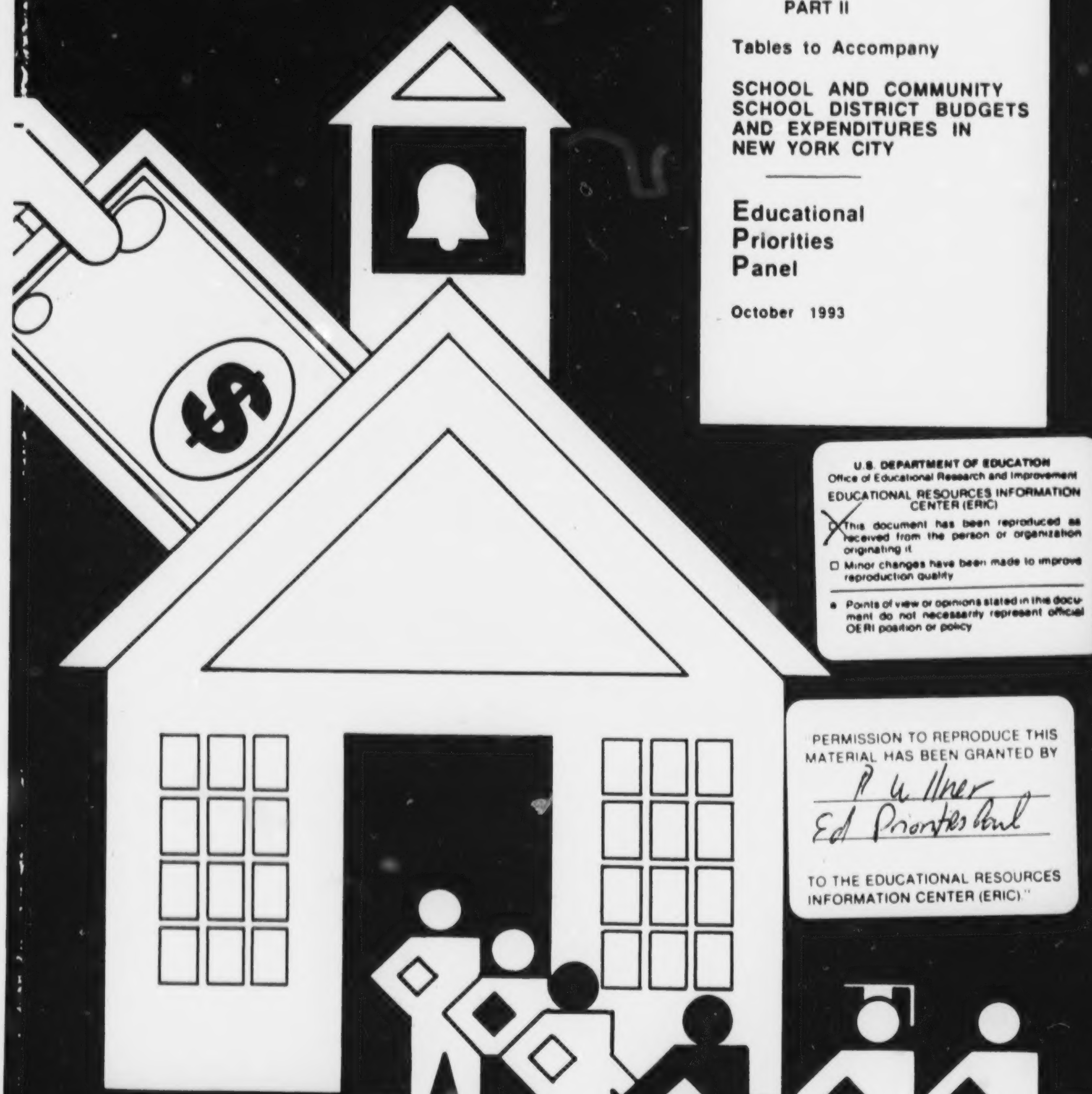
PART II

Tables to Accompany

SCHOOL AND COMMUNITY SCHOOL DISTRICT BUDGETS AND EXPENDITURES IN NEW YORK CITY

Educational Priorities Panel

October 1993



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The Aaron Diamond Foundation &
The Andrew W. Mellon Foundation

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TABLES TO ACCOMPANY

SCHOOL AND COMMUNITY SCHOOL DISTRICT BUDGETS AND EXPENDITURES IN NEW YORK CITY

A Report Prepared for the Education Priorities Panel[1]

Robert Berne and Leanna Stiefel

Robert F. Wagner Graduate School of Public Service
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[1] Funding for this research was provided by a grant to the Education Priorities Panel by the Aaron Diamond Foundation and by the Andrew W. Mellon Foundation.

TABLE 1

DISTRICT 1 -32 GENERAL EDUCATION BUDGET FY'92
CITYWIDE SUMMARY IN DOLLARS
AS OF 01/30/92

TOTAL GENERAL ED REGISTER 625,040

RVICE TYPE	ADMIN D.O.	ERLY GRADE	ELEM	J.H.S.	BILINGUAL	AFTER SCHL	OTHER	TOTAL	PERCAP
ACHERS	4,913,132	381,758,804	336,778,335	357,297,400	98,422,300	173,372	0	$1,179,343,343	1,886.83
PS	3,283,397	1,701,396	21,434,956	7,447,330	196,206	376,393	21,671,262	56,110,940	89.77
SST PRINCIPAL	0	0	32,942,600	21,999,756	10,000	0	0	54,960,356	87.93
RINCIPAL	0	0	37,475,307	11,157,208	0	0	0	48,632,515	77.81
CRETARY	20,029	0	34,108,006	14,062,798	0	0	0	48,190,833	77.10
H. AIDES	1,311,152	1,531,800	33,352,161	10,896,548	0	602,957	0	47,694,618	76.31
R DIEM	994,649	565,021	17,828,446	6,890,002	139,596	1,020	0	26,418,734	42.27
UNSELLING	169,033	0	11,589,165	13,032,711	1,114,435	0	0	25,905,344	41.45
FT PARAS	36,349	22,003,443	1,434,342	143,700	1,371,284	639,180	0	25,628,298	41.00
OMINISTRATN	24,071,286	7,509	36,181	172,960	60,075	511,905	0	24,859,916	39.77
AID LEAVES	35,782	1,730,205	13,855,208	6,883,226	336,200	0	0	22,840,621	36.54
REP PERIODS	0	472,864	1,216,036	5,403,813	279,184	0	0	7,371,897	11.79
ER SESSION	50,776	5,477	934,533	725,629	8,223	5,636,347	0	7,360,985	11.78
CH GUARDS	170,547	0	4,554,682	774,910	0	618,704	0	6,118,843	9.79
XT. USE	0	0	203,789	2,915	0	5,636,959	0	5,843,663	9.35
UMP SUM*	232,840	366,884	2,020,487	678,769	36,627	15,967	454,362	3,805,936	6.09
OMM. RELATION	462,157	10,875	630,138	76,738	16,296	236,029	0	1,432,233	2.29
AB SPECIALIST	0	0	0	928,315	0	0	0	928,315	1.49
C37 PARAS	207,460	7,614	383,217	42,912	0	41,736	0	682,939	1.09
THER HRLIES	21,250	554	32,108	22,008	0	167,315	0	243,315	.39
OTAL	35,979,839	410,162,446	550,809,777	458,639,648	101,998,426	14,657,884	22,125,624	$1,594,373,644	2,550.83

OTE: CATEGORIES ACROSS TOP OF PAGE ARE DERIVED FROM BUDGET CODE DEFINITIONS.

*IF BUDGETED: BACK PAY, ASSIGNMENT DIFFERENTIALS, LONGEVITY, AND OVERTIME.

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TABLE 2

DISTRICT 1 - 32 GENERAL EDUCATION SCHOOL SPENDING PLAN FY'92
CITYWIDE SUMMARY IN DOLLARS
AS OF 01/30/92

TOTAL GENERAL ED REGISTER 625,040

SERVICE TYPE	ADMIN D.O.	ERLY GRADE	ELEM	J.H.S.	BILINGUAL	AFTER SCHL	OTHER	TOTAL	PERCAP
TEACHERS	4,323,527	379,121,900	326,557,717	350,798,765	85,042,642	173,372	0	$1,146,017,923	1,833.51
ASST PRINCIPAL	0	0	31,683,754	21,129,565	18,000	0	0	52,831,319	84.52
OTPS	3,033,803	1,338,586	19,737,173	6,479,800	177,970	284,771	20,891,207	51,943,318	83.10
PRINCIPAL	0	0	37,176,020	11,035,013	0	0	0	48,211,033	77.13
SECRETARY	20,029	0	32,609,331	13,686,206	0	0	0	46,315,566	74.10
SCH. AIDES	1,145,878	1,480,000	30,637,435	10,288,169	0	531,603	0	44,083,165	70.53
UFT PARAS	36,349	20,751,153	1,145,582	128,455	1,371,286	609,123	0	24,041,948	38.46
COUNSELLING	89,746	0	10,536,517	12,276,717	1,046,897	0	0	23,949,877	38.32
PER DIEM	833,856	85,020	15,895,650	5,956,503	84,201	1,020	0	22,856,330	36.57
ADMINISTRATN	21,654,617	0	32,218	171,903	24,917	500,158	0	22,383,813	35.81
PAID LEAVES	35,782	1,232,584	9,616,866	4,980,273	205,145	0	0	16,070,950	25.71
PER SESSION	31,030	5,477	693,903	601,762	0	4,888,726	0	6,220,898	9.95
PREP PERIODS	0	309,668	958,354	4,405,241	210,184	0	0	5,883,447	9.41
SCH GUARDS	169,102	0	4,196,434	663,145	0	440,831	0	5,469,512	8.75
EXT. USE	0	0	153,767	2,915	0	4,313,225	0	4,469,907	7.15
LUMP SUM*	188,075	263,266	778,974	510,850	31,255	13,830	0	1,786,250	2.86
COMM. RELATION	415,182	17,763	605,352	72,598	12,009	195,606	0	1,318,510	2.11
LAB SPECIALIST	0	0	0	927,827	0	0	0	927,827	1.48
DC37 PARAS	160,833	0	363,003	27,908	0	30,177	0	581,921	.93
OTHER HRLIES	18,177	0	22,446	22,008	0	102,587	0	165,218	.26
TOTAL	32,155,986	404,605,417	523,400,496	444,165,711	88,224,806	12,085,109	20,891,207	$1,525,528,732	2,440.69

NOTE: CATEGORIES ACROSS TOP OF PAGE ARE DERIVED FROM BUDGET CODE DEFINITIONS.

*IF BUDGETED: BACK PAY, ASSIGNMENT DIFFERENTIALS, LONGEVITY, AND OVERTIME.

TABLE 3

DISTRICT-LEVEL BUDGETS PER PUPIL
GENERAL EDUCATION
1991-92

	Total District GE Budget Per Pupil	GE School Allocation Per Pupil	GE District Office Budget Per Pupil	GE Unallocated Budget Per Pupil
Mean	$2,550	$2,327	$114	$110
Maximum	$2,842	$2,583	$258	$419
Minimum	$2,414	$2,062	$28	$3
Range	$428	$520	$230	$417
Standard deviation	$77.1	$120.2	$52.8	$100.0
Coefficient of variation	0.03	0.05	0.46	0.91
Number of districts	32	32	32	32
Number of pupils	625,040	625,040	625,040	625,040

Source: 1991-92 District and School Budget Data, General Education File, New York City Public Schools

TABLE 4

DISTRICT-LEVEL BUDGETS PER PUPIL, BY DISTRICT GENERAL EDUCATION, 1992-92

District Number	Total District GE Budget Per Pupil	GE School Allocation Per Pupil	GE District Office Budget Per Pupil	GE Unallocated Budget Per Pupil
1	$2,842	$2,583	$215	$45
2	$2,533	$2,354	$146	$34
3	$2,531	$2,072	$40	$419
4	$2,524	$2,316	$143	$64
5	$2,497	$2,078	$28	$392
6	$2,523	$2,243	$244	$36
7	$2,685	$2,306	$97	$281
8	$2,666	$2,375	$89	$202
9	$2,524	$2,285	$89	$150
10	$2,592	$2,290	$136	$165
11	$2,571	$2,365	$114	$93
12	$2,593	$2,455	$114	$24
13	$2,452	$2,292	$81	$79
14	$2,597	$2,298	$74	$225
15	$2,699	$2,569	$127	$3
16	$2,422	$2,094	$174	$154
17	$2,523	$2,272	$67	$185
18	$2,553	$2,317	$75	$161
19	$2,543	$2,391	$110	$42
20	$2,585	$2,385	$67	$134
21	$2,544	$2,396	$75	$73
22	$2,414	$2,062	$63	$290
23	$2,498	$2,291	$172	$35
24	$2,553	$2,358	$186	$10
25	$2,469	$2,228	$86	$154
26	$2,538	$2,425	$90	$22
27	$2,508	$2,334	$94	$81
28	$2,450	$2,281	$90	$79
29	$2,563	$2,282	$258	$24
30	$2,476	$2,338	$128	$10
31	$2,670	$2,571	$87	$12
32	$2,553	$2,415	$103	$35

Source: see Table 3.

TABLE 5

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL DISTRICT BUDGET, SCHOOL ALLOCATION, DISTRICT OFFICE BUDGET, AND UNALLOCATED BUDGET WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Total District GE Budget Per Pupil	GE School Allocation Per Pupil	GE District Office Budget Per Pupil	GE Unallocated Budget Per Pupil
Regression coefficient	48.0	-112.2	37.4	122.9
Result of a 50 percentage point change in free lunch	$24.0	-$56.1	$18.7	$61.4
"High" poverty district	$2,561	$2,304	$121	$135
"Low" poverty district	$2,537	$2,360	$103	$74
Simple correlation	.112	-.168	.127	.221
Coefficient of determination	.013	.028	.016	.049
Number of pupils	625,040	625,040	625,040	625,040

Note: Mean value of free lunch (pupil weighted) is .598.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 6

DISTRICT-LEVEL SCHOOL ALLOCATIONS PER PUPIL
TOTAL, DIRECT, AND INDIRECT
GENERAL EDUCATION
1991-92

	GE Total School Allocation Per Pupil	GE Direct School Allocation Per Pupil	GE Indirect School Allocation Per Pupil
Mean	$2,327	$2,012	$314
Maximum	$2,583	$2,264	$412
Minimum	$2,062	$1,787	$220
Range	$520	$477	$192
Standard deviation	$120.2	$106.6	$40.6
Coefficient of variation	0.05	0.05	0.13
Number of districts	32	32	32
Number of pupils	625,040	625,040	625,040

Note: For definitions of direct and indirect, see text.

Source: 1991-92 District and School Budget Data, General Education File, New York City Public Schools

TABLE 7

DISTRICT-LEVEL SCHOOL ALLOCATIONS PER PUPIL, BY DISTRICT
TOTAL, DIRECT AND INDIRECT
GENERAL EDUCATION, 1991-92

District Number	GE Total School Allocation Per Pupil	GE Direct School Allocation Per Pupil	GE Indirect School Allocation Per Pupil
1	$2,583	$2,171	$412
2	$2,354	$2,112	$242
3	$2,072	$1,830	$242
4	$2,316	$2,033	$283
5	$2,078	$1,827	$251
6	$2,243	$1,930	$314
7	$2,306	$1,990	$317
8	$2,375	$1,994	$382
9	$2,285	$1,958	$327
10	$2,290	$1,953	$338
11	$2,365	$2,076	$289
12	$2,455	$2,061	$395
13	$2,292	$1,981	$311
14	$2,298	$1,888	$410
15	$2,569	$2,264	$305
16	$2,094	$1,787	$307
17	$22,72	$1,981	$290
18	$2,317	$2,017	$300
19	$2,391	$2,066	$325
20	$2,385	$2,057	$328
21	$2,396	$2,032	$364
22	$2,062	$1,842	$220
23	$2,291	$1,950	$341
24	$2,358	$2,034	$324
25	$2,228	$1,908	$320
26	$2,425	$2,128	$297
27	$2,334	$2,026	$308
28	$2,281	$1,973	$308
29	$2,281	$1,992	$289
30	$2,338	$2,033	$305
31	$2,571	$2,257	$314
32	$2,415	$2,076	$339

For definitions and sources, see Table 6.

TABLE 8

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL, DIRECT, AND INDIRECT SCHOOL ALLOCATIONS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Total School Allocation Per Pupil	GE Direct School Allocation Per Pupil	GE Indirect School Allocation Per Pupil
Regression coefficient	-112.2	-200.9	88.7
Result of a 50 percentage point change in free lunch	-$56.1	-$100.4	$44.3
"High" poverty district	$2,304	$1,972	$332
"Low" poverty district	$2,360	$2,072	$288
Simple correlation	-.168	-.339	.393
Coefficient of determination	.028	.114	.154
Number of pupils	625,040	625,040	625,040

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 9

DISTRICT-LEVEL TEACHERS' SALARIES PER PUPIL ALLOCATION TO SCHOOLS AND DISTRICT BUDGET GENERAL EDUCATION 1991-92

	GE Teachers' Salary School Allocation Per Pupil	GE Teachers' Salary District Budget Per Pupil
Mean	$1,820	$1,887
Maximum	$2,037	$2,096
Minimum	$1,663	$1,765
Range	$375	$331
Standard deviation	$96.4	$79.6
Coefficient of variation	0.05	0.04
Number of districts	32	32
Number of pupils	625,040	625,040

Note: For definitions, see text.

Source: 1991-92 District and School Budget Data, General Education File, New York City Public Schools

TABLE 10

DISTRICT-LEVEL TEACHERS' SALARY PER PUPIL, BY DISTRICT ALLOCATION TO SCHOOLS AND DISTRICT BUDGET GENERAL EDUCATION, 1991-92

District Number	GE Teachers' Salary School Allocation Per Pupil	GE Teachers' Salary District Budget Per Pupil
1	$1,955	$1,999
2	$1,953	$1,993
3	$1,713	$1,917
4	$1,922	$1,960
5	$1,758	$1,840
6	$1,717	$1,765
7	$1,863	$2,096
8	$1,814	$1,903
9	$1,821	$1,862
10	$1,730	$1,865
11	$1,870	$1,928
12	$1,768	$1,780
13	$1,754	$1,827
14	$1,834	$1,909
15	$2,037	$2,051
16	$1,701	$1,792
17	$1,730	$1,830
18	$1,795	$1,859
19	$1,834	$1,854
20	$1,892	$1,948
21	$1,888	$1,911
22	$1,662	$1,845
23	$1,827	$1,837
24	$1,752	$1,790
25	$1,710	$1,861
26	$1,927	$1,939
27	$1,756	$1,813
28	$1,796	$1,848
29	$1,873	$1,900
30	$1,794	$1,852
31	$2,036	$2,053
32	$1,834	$1,848

For definitions and sources, see Table 9.

TABLE 11

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TEACHERS' SALARIES SCHOOL ALLOCATION AND DISTRICT BUDGET PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	GE Teachers' Salary School Allocation Per Pupil	GE Teachers' Salary District Budget Per Pupil
Regression coefficient	-149.2	-127.4
Result of a 50 percentage point change in free lunch	-$74.6	-$63.7
"High" poverty district	$1,790	$1,861
"Low" poverty district	$1,864	$1,925
Simple correlation	-.278	-.288
Coefficient of determination	.077	.083
Number of pupils	625,040	625,040

Note: Mean value of free lunch (pupil weighted) is .598.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 12

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TEACHERS' SALARY LEVELS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	Average Teacher's Salary
Regresssion coefficient	-9,072
Result of a 50 percentage point change in free lunch	-$4,536
"High poverty district	$39,275
"Low" poverty district	$43,810
Simple correlation	-.829
Coefficient of determination	.688
Number of pupils	625,040

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 13

DISTRICT-LEVEL BUDGETS PER PUPIL FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS
GENERAL EDUCATION
1991-92

	GE Direct School Allocations Per Pupil	GE Indirect School Allocations Per Pupil	GE Teachers' Salary School Allocation Per Pupil	GE Total School Allocation Per Pupil
Mean	$1,904	$309	$1,718	$2,212
Maximum	$2,212	$420	$1,998	$2,504
Minimum	$1,642	$203	$1,513	$1,902
Range	$571	$216	$230	$417
Standard deviation	$127.5	$42.3	$125.9	$134.6
Coefficient of variation	0.07	0.14	0.07	0.06
Number of districts	32	32	32	32
Number of pupils	450,853	450,853	450,853	450,853

Source: 1991-92 District and School Budget Data, General Education File, New York City Public Schools

TABLE 14

DISTRICT-LEVEL BUDGETS PER PUPIL FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS GENERAL EDUCATION 1991-92

	GE Direct School Allocations Per Pupil	GE Indirect School Allocations Per Pupil	GE Teachers' Salary School Allocation Per Pupil	GE Total School Allocation Per Pupil
Mean	$2,294	$329	$2,084	$2,624
Maximum	$2,609	$452	$2,342	$3,029
Minimum	$1,607	$180	$1,500	$1,788
Range	$1,001	$272	$843	$417
Standard deviation	$174.4	$50.3	$149.1	$209.9
Coefficient of variation	0.08	0.15	0.07	0.08
Number of districts	32	32	32	32
Number of pupils	174,187	174,187	174,187	174,187

Source: 1991-92 District and School Budget Data, General Education File, New York City Public Schools

TABLE 15

DISTRICT-LEVEL SCHOOL BUDGETS PER PUPIL, BY DISTRICT FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS GENERAL EDUCATION, 1991-92

District Number	GE Direct School Allocations Per Pupil	GE Indirect School Allocations Per Pupil	GE Teachers' Salary School Allocations Per Pupil	GE Total School Allocation Per Pupil
1	$2,001	$409	$1,806	$2,410
2	$2,036	$234	$1,880	$2,270
3	$1,915	$266	$1,796	$2,181
4	$2,048	$286	$1,946	$2,334
5	$1,840	$250	$1,766	$2,089
6	$1,727	$294	$1,513	$2,021
7	$1,823	$307	$1,715	$2,130
8	$1,837	$351	$1,694	$2,188
9	$1,822	$319	$1,691	$2,141
10	$1,773	$327	$1,535	$2,100
11	$1,951	$284	$1,748	$2,235
12	$1,965	$383	$1,711	$2,348
13	$1,872	$305	$1,658	$2,177
14	$1,720	$420	$1,672	$2,139
15	$2,212	$292	$1,998	$2,504
16	$1,642	$298	$1,571	$1,939
17	$1,902	$275	$1,626	$2,177
18	$1,950	$277	$1,685	$2,227
19	$1,930	$309	$1,718	$2,240
20	$1,977	$350	$1,818	$2,327
21	$1,889	$377	$1,770	$2,266
22	$1,699	$203	$1,524	$1,902
23	$1,819	$330	$1,709	$2,148
24	$1,979	$320	$1,682	$2,299
25	$1,770	$301	$1,578	$2,071
26	$2,051	$305	$1,872	$2,356
27	$1,916	$311	$1,664	$2,226
28	$1,856	$294	$1,699	$2,150
29	$1,954	$292	$1,837	$2,246
30	$1,923	$307	$1,694	$2,230
31	$2,172	$312	$1,969	$2,483
32	$1,928	$343	$1,683	$2,272

For definitions and sources, see Table 14.

TABLE 16

DISTRICT-LEVEL SCHOOL BUDGETS PER PUPIL, BY DISTRICT FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS GENERAL EDUCATION, 1991-92

District Number	GE Direct School Allocations Per Pupil	GE Indirect School Allocations Per Pupil	GE Teachers' Salary School Allocations Per Pupil	GE Total School Allocation Per Pupil
1	$2,609	$420	$2,343	$3,029
2	$2,302	$261	$2,136	$2,563
3	$1,607	$180	$1,500	$1,788
4	$1,993	$276	$1,858	$2,270
5	$1,783	$255	$1,731	$2,038
6	$2,386	$360	$2,179	$2,746
7	$2,456	$345	$2,276	$2,801
8	$2,358	$452	$2,095	$2,810
9	$2,271	$347	$2,120	$2,619
10	$2,464	$370	$2,287	$2,833
11	$2,329	$299	$2,120	$2,629
12	$2,374	$432	$1,954	$2,806
13	$2,444	$338	$2,165	$2,782
14	$2,342	$385	$2,270	$2,727
15	$2,463	$357	$2,187	$2,820
16	$2,458	$349	$2,301	$2,808
17	$2,167	$326	$1,974	$2,493
18	$2,163	$350	$2,032	$2,513
19	$2,574	$383	$2,269	$2,957
20	$2,206	$286	$2,030	$2,492
21	$2,341	$335	$2,144	$2,677
22	$2,221	$264	$2,029	$2,485
23	$2,358	$376	$2,191	$2,735
24	$2,147	$332	$1,896	$2,479
25	$2,273	$368	$2,059	$2,642
26	$2,265	$284	$2,025	$2,549
27	$2,348	$299	$2,024	$2,647
28	$2,374	$355	$2,129	$2,729
29	$2,084	$283	$1,961	$2,367
30	$2,381	$297	$2,112	$2,678
31	$2,449	$319	$2,184	$2,768
32	$2,370	$330	$2,136	$2,700

For definitions and sources, see Table 14.

TABLE 17

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS WITH PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Direct School Allocation Per Pupil	GE Indirect School Allocation Per Pupil	GE Teachers' Salary School Allocation Per Pupil	GE Total School Allocation Per Pupil
Regression coefficient	-256.0	59.4	-211.2	-196.6
Result of a 50 percentage point change in free lunch	-$128.0	$29.7	-$105.6	-$98.3
"High" poverty district	$1,859	$318	$1,682	$2,178
"Low" poverty district	$1,987	$289	$1,787	$2,277
Simple correlation	-.389	.272	-.325	-.283
Coefficient of determination	.151	.074	.106	.080
Number of pupils	450,853	450,853	450,853	450,853

Note: Mean value of free lunch (pupil weighted) is .628.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 18

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS WITH PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	GE Direct School Allocation Per Pupil	GE Indirect School Allocation Per Pupil	GE Teachers' Salary School Allocation Per Pupil	GE Total School Allocation Per Pupil
Regression coefficient	259.6	175.2	306.9	434.7
Result of a 50 percentage point change in free lunch	$129.8	$87.6	$153.5	$217.4
"High" poverty district	$2,366	$378	$2,170	$2,745
"Low" poverty district	$2,236	$291	$2,016	$2,527
Simple correlation	.238	.557	.329	.331
Coefficient of determination	.057	.310	.108	.110
Number of pupils	174,187	174,187	174,187	174,187

Note: Mean value of free lunch (pupil weighted) is .522.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 19

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TEACHERS' SALARY LEVELS IN ELEMENTARY SCHOOLS AND MIDDLE/JUNIOR HIGH SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Average Teacher's Salary in Elementary Schools	Average Teacher's in Middle/Junior High Schools
Regresssion coefficient	-8,698	-8,485
Result of a 50 percentage point change in free lunch	-$4,349	-$4,243
"High poverty district	$39,213	$39,599
"Low" poverty district	$43,562	$43,842
Simple correlation	-.835	-.655
Coefficient of determination	.697	.428
Number of pupils	450,853	174,187

Note: Mean value of free lunch (pupil weighted) is .628 in elementary schools and .522 in middle/junior high schools. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 20

SCHOOLS ELIMINATED FROM SCHOOL-LEVEL ANALYSIS ON BASIS OF DISTRICT COMMENTS

BOROUGH	DISTRICT	SCHOOL
Manhattan	3	208
Manhattan	3	149
Manhattan	3	207
Manhattan	5	175
Manhattan	5	275
Bronx	8	120
Brooklyn	13	046
Brooklyn	15	146
Queens	24	081

TABLE 21

AGGREGATE STATISTICS ON OUTLIERS IN GENERAL EDUCATION DATA FILE

	Per Pupil Total Spending	Per Pupil Total Spending	Per Pupil Teacher Spending	Per Pupil Teacher Spending
Type School	Elementary	Middle/Junior High School	Elementary	Middle/Junior High School
Cutoffs	≥ \$3,700; ≤ \$1,600	≥ \$3,700; ≤ \$1,600	≥ \$3,500; ≤ \$1,000	≥ \$3,500; ≤ \$1,000
No School Eliminated	16	5	16	5
Percent Schools Eliminated	2.5% (16/630)	2.8% (5/178)	2.5% (16/630)	2.8% (5/178)

TABLE 22

AGGREGATE STATISTICS ON OUTLIERS IN POSITION DATA FILE

	Total Pupils Per Total Position	Total Pupils Per Total Position	Total Pupils Per Total Teacher Position	Total Pupils Per Total Teacher Position	Total Pupils Per General Education Positions	Total Pupils Per General Education Positions	Total Pupils Per General Education Teacher Positions	Total Pupils Per General Education Teacher Positions
Type School	Elementary	Middle/ Junior High	Elementary	Middle/ Junior High	Elementary	Middle/ Junior High	Elementary	Middle/ Junior High
Cutoffs	≥25, ≤10	≥25, ≤10	≥28, ≤12	≥28, ≥12	≥25, ≥10	≥25, ≤10	≥28, ≤12	≥28, ≥10
No. of Schools Eliminated	17	5	19	7	38	5	64	5
Percent of Schools Eliminated	2.7 (17/635)	2.9 (5/175)	3.0 (19/635)	4.0 (7/175)	6.0 (38/635)	2.9 (5/175)	10.1 (64/635)	2.9 (5/175)

TABLE 23

SCHOOLS ELIMINATED FROM GENERAL EDUCATION FILE FOR GRAND TOTAL SPENDING VARIABLE

Elementary Schools

BDS*	Chapter 1 Schools	Total Pupils	Grand Total Spending	Per Pupil Grand Total Spending
103191	yes	205	927822.0	4,525.96
103207	yes	203	1297458	6,391.42
103208	yes	357	227625.0	637.61
104050	yes	501	1975779	3,943.67
104101	yes	386	1501340	3,889.48
105125	yes	646	998709.0	1,545.99
105175	yes	213	1699929	7,980.89
207031	yes	849	1317488	1,551.81
207161	yes	455	2187923	4,808.62
210081	no	727	1038327	1,428.24
210086	yes	1892	2536740	1,340.77
210291	yes	590	777881.0	1,318.44
314319	yes	135	512236.0	3,794.34
425219	no	508	758221.0	1,492.56
531016	yes	756	2995554	3,962.37
531046	no	263	991447.0	3,769.76

Middle/Junior High Schools

103054	yes	1,373	2059821	1500.23
104013	yes	376	1683295	4476.85
105010	yes	142	701858.0	4942.66
208120	yes	305	1189052	3898.53
212098	yes	226	849798.0	3760.17

* BDS is a six digit code with borough in the first digit, district number in the second two digits, and school number in the last three digits.

TABLE 24

SCHOOLS ELIMINATED FROM POSITION FILE FOR TOTAL POSITION VARIABLE

Elementary Schools

BDS*	Chapter 1 Schools	Total Pupils	Eligible Pupils	Total Positions	Pupils Per Total Positions
103191	yes	205	239	21	9.76
103207	yes	203	126	34	5.97
103208	yes	357	200	7	51.00
104050	yes	501	216	53	9.45
104101	yes	386	268	45	8.58
105175	yes	213	119	56	3.80
207161	yes	455	332	65	7.00
210081	no	727	172	13	55.92
210086	yes	1892	1115	71	26.65
210280	yes	309	113	12	25.75
315146	no	203	0	1	203.00
319190	yes	316	341	35	9.03
320192	yes	349	211	38	9.18
322251	no	694	160	25	27.76
426221	no	754	55	30	25.13
531036	no	1322	83	47	28.13

Middle/Junior High Schools

104013	yes	376	192	44	8.55
105010	yes	142	352	22	6.45
105195	yes	1152	467	24	48.00
207184	yes	562	263	66	8.52

* BDS is a six digit code with borough in the first digit, district number in the second two digits, and school number in the last three digits.

TABLE 25

Pupil Weighted Summary Measures
Spending per Pupil
Across All New York City Elementary Schools
Funding File: General Education

Variable:	Total Spending	Total Teacher Spending
Mean:	$2,206	$1,719
Maximum:	$3,626	$3,480
Minimum:	$1,615	$1,030
Range:	$2,011	$2,450
Standard Deviation:	256.5	232.9
Coefficient of Variation:	0.12	0.14
Number of Schools:	611	619
Number of Pupils:	439,708	443,752

SOURCE DATA: Community School Districts, School Budgets, New York City Office of Budget Operations and Review, 1991–92 Fiscal Year

Outliers Eliminated:
Total Spending: ≥3,700; ≤1,600
Total Teacher Spending: ≥3,500; ≤1,000

TABLE 26

Pupil Weighted Summary Measures: Spending per Pupil
New York City Elementary Schools: Within Each District

Funding File: General Education
Variable: Total Spending

District	Observations	Mean	Maximum	Minimum	Range	Standard Deviation	Coefficient of Variation
1	schools: 14; pupils: 6,467	2,410.1	2,984.7	2,146.0	838.7	192.1	0.08
2	schools: 23; pupils: 13,189	2,269.8	3,196.2	2,018.5	1,177.7	217.8	0.10
3	schools: 14; pupils: 8,577	2,161.6	3,591.0	1,885.3	1,705.7	365.7	0.17
4	schools: 14; pupils: 8,545	2,169.4	2,675.2	1,670.0	1,005.1	268.0	0.12
5	schools: 12; pupils: 8,850	1,987.1	2,204.5	1,821.9	382.6	135.9	0.07
6	schools: 11; pupils: 15,092	2,020.6	2,269.1	1,838.0	431.1	134.6	0.07
7	schools: 14; pupils: 8,330	2,042.4	2,595.1	1,666.2	928.9	213.5	0.10
8	schools: 19; pupils: 13,196	2,188.2	2,620.4	1,904.7	715.7	164.8	0.08
9	schools: 25; pupils: 18,687	2,140.9	3,232.2	1,614.9	1,617.3	273.2	0.13
10	schools: 24; pupils: 22,341	2,206.7	3,117.5	1,772.3	1,345.2	240.4	0.11
11	schools: 23; pupils: 14,519	2,234.7	2,878.2	1,851.8	1,026.4	195.7	0.09
12	schools: 17; pupils: 12,345	2,348.5	2,717.3	2,100.0	617.3	189.0	0.08
13	schools: 17; pupils: 11,680	2,147.2	2,645.7	1,882.5	763.3	173.4	0.08
14	schools: 19; pupils: 12,254	2,121.2	2,828.8	1,748.1	1,080.7	210.0	0.10
15	schools: 20; pupils: 14,521	2,490.4	3,212.6	2,146.9	1,065.7	256.0	0.10
16	schools: 13; pupils: 8,596	1,939.3	2,131.0	1,727.1	404.0	135.3	0.07
17	schools: 17; pupils: 18,127	2,177.0	2,528.9	1,822.1	706.8	168.1	0.08
18	schools: 12; pupils: 10,949	2,227.0	2,769.0	1,957.7	811.2	143.3	0.06
19	schools: 21; pupils: 16,982	2,239.5	3,625.9	1,968.2	1,657.8	265.6	0.12
20	schools: 22; pupils: 14,546	2,327.4	3,179.2	1,972.1	1,207.1	260.9	0.11
21	schools: 22; pupils: 13,754	2,265.7	3,116.6	1,991.2	1,125.4	207.7	0.09
22	schools: 21; pupils: 17,032	1,902.2	2,306.1	1,708.5	597.6	138.3	0.07
23	schools: 14; pupils: 9,352	2,148.3	2,612.9	1,858.5	754.4	185.3	0.09
24	schools: 18; pupils: 16,754	2,300.3	3,287.6	2,045.8	1,241.9	238.5	0.10
25	schools: 22; pupils: 14,859	2,091.2	2,447.5	1,869.4	578.2	155.2	0.07
26	schools: 20; pupils: 8,624	2,355.8	3,188.3	1,861.1	1,327.3	373.1	0.16
27	schools: 29; pupils: 21,244	2,226.0	2,764.8	1,847.4	917.4	171.2	0.08
28	schools: 23; pupils: 16,111	2,149.6	2,780.0	1,868.4	911.6	200.0	0.09
29	schools: 23; pupils: 16,084	2,245.9	2,748.4	1,940.9	807.6	196.1	0.09
30	schools: 36; pupils: 21,217	2,414.6	1,709.3	2,023.9	866.3	213.0	0.09
31	schools: 38; pupils: 22,236	2,483.3	3,398.0	1,688.7	1,709.3	327.6	0.13
32	schools: 12; pupils: 9,986	2,271.5	2,644.8	2,026.7	618.1	191.0	0.08

Source Data: Community School Districts, School Budgets, NYC Office of Budget Operations & Review, 1991 – 92 Fiscal Year

TABLE 27

Pupil Weighted Summary Measures: Teacher Spending Per Pupil
New York City Elementary Schools: Within Each District

Funding File: General Education
Variable: Total Teacher Spending

District	Observations	Mean	Maximum	Minimum	Range	Standard Deviation	Coefficient of Variation
1	schools: 14; pupils: 6,467	1,805.7	2,142.0	1,517.1	624.9	162.7	0.09
2	schools: 23; pupils: 13,189	1,880.1	2,462.5	1,672.3	790.3	196.0	0.10
3	schools: 14; pupils: 8,577	1,790.7	3,129.4	1,360.1	1,769.3	343.1	0.19
4	schools: 14; pupils: 8,545	1,805.1	2,160.4	1,299.4	861.0	241.6	0.13
5	schools: 12; pupils: 8,850	1,685.6	1,843.5	1,504.5	339.0	96.0	0.06
6	schools: 11; pupils: 15,092	1,512.7	1,726.6	1,343.4	383.2	101.4	0.07
7	schools: 14; pupils: 8,330	1,632.5	2,013.4	1,298.6	714.7	197.1	0.12
8	schools: 19; pupils: 13,196	1,693.5	1,985.8	1,447.0	538.8	138.8	0.08
9	schools: 25; pupils: 18,687	1,691.4	2,210.9	1,323.1	887.8	213.9	0.13
10	schools: 24; pupils: 22,341	1,661.2	2,113.0	1,058.7	1,054.3	172.6	0.10
11	schools: 23; pupils: 14,519	1,747.5	2,143.6	1,315.3	828.4	186.2	0.11
12	schools: 17; pupils: 12,345	1,711.2	1,907.2	1,502.8	404.4	116.9	0.07
13	schools: 17; pupils: 11,680	1,642.4	2,022.3	1,382.9	639.4	123.1	0.07
14	schools: 19; pupils: 12,254	1,662.5	2,056.3	1,442.1	614.2	140.5	0.08
15	schools: 20; pupils: 14,521	1,979.8	2,591.9	1,544.5	1,047.5	257.6	0.13
16	schools: 13; pupils: 8,596	1,571.1	1,717.0	1,333.2	383.8	114.9	0.07
17	schools: 17; pupils: 18,127	1,625.8	1,868.0	1,420.7	447.3	128.0	0.08
18	schools: 12; pupils: 10,949	1,684.8	2,024.7	1,433.4	591.3	144.9	0.09
19	schools: 21; pupils: 16,982	1,718.3	2,670.8	1,484.8	1,186.0	185.3	0.11
20	schools: 22; pupils: 14,546	1,818.1	2,480.6	1,544.8	935.8	195.3	0.11
21	schools: 22; pupils: 13,754	1,769.5	2,171.3	1,402.3	769.0	152.1	0.09
22	schools: 21; pupils: 17,032	1,523.1	1,730.2	1,338.7	391.5	78.5	0.05
23	schools: 14; pupils: 9,352	1,709.2	1,937.3	1,499.1	438.2	130.3	0.08
24	schools: 18; pupils: 16,754	1,680.9	2,313.3	1,481.1	832.3	153.7	0.09
25	schools: 22; pupils: 14,859	1,597.0	1,977.5	1,463.2	514.4	112.0	0.07
26	schools: 20; pupils: 8,624	1,871.7	2,554.7	1,414.4	1,140.3	313.9	0.17
27	schools: 29; pupils: 21,244	1,664.3	1,947.2	1,420.5	526.7	144.9	0.09
28	schools: 23; pupils: 16,111	1,699.0	2,104.7	1,509.1	595.6	150.6	0.09
29	schools: 23; pupils: 16,084	1,837.0	2,131.9	1,587.8	544.1	147.2	0.08
30	schools: 20; pupils: 16,898	1,693.7	2,167.4	1,496.3	671.1	177.1	0.10
31	schools: 36; pupils: 21,217	1,905.7	2,622.3	1,373.9	1,248.4	218.5	0.11
32	schools: 12; pupils: 9,986	1,683.0	2,034.2	1,506.0	528.1	145.0	0.09

Source Data: Community School Districts, School Budgets, NYC Office of Budget Operations & Review, 1991 – 92 Fiscal Year

TABLE 28
RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS OF PER PUPIL TOTAL SCHOOL SPENDING AND PER PUPIL TOTAL TEACHER SPENDING IN ELEMENTARY SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE
1991-92

	Total School GE Budget Per Pupil	Total School GE Teacher Budget Per Pupil
Regression Coefficient	-31.7	-61.3
Result of a 50 percentage point difference in free lunch	-$15.9	-$30.7
"High" poverty school	$2,201	$1,701
"Low" poverty school	$2,217	$1,732
Simple Correlation	-.032	-.064
Coefficient of determination	.001	.004
Number of pupils	438,871	446,124

Note: Mean value of free lunch (pupil weighted) is .626.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 29
RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSES OF AVERAGE TEACHERS' SALARIES IN ELEMENTARY AND MIDDLE/JUNIOR HIGH SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE
1991-92

	Average Teachers' Salary, Elementary Schools	Average Teachers' Salary, Middle/Junior-High Schools
Regression Coefficient	-6,414	-5,746
Result of a 50 percentage point difference in free lunch	-$3,207	-$2,873
"High" poverty school	$39,706	$40,516
"Low" poverty school	$42,913	$43,389
Simple Correlation	-.559	-.453
Coefficient of determination	.312	.205
Number of pupils	438,494	446,124

Note: Mean value of free lunch (pupil weighted) is .626.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 30

Pupil Weighted Summary Measures
Spending per Pupil
Across All New York City Middle/Junior Schools
Funding File: General Education

Variable:	Total Spending	Total Teacher Spending
Mean:	2,631	2,090
Maximum:	3,621	3,423
Minimum:	1,617	1,190
Range:	2,004	2,233
Standard Deviation:	293.9	238.5
Coefficient of Variation:	0.11	0.11
Number of Schools:	173	177
Number of Pupils:	171,222	173,339

SOURCE DATA: Community School Districts, School Budgets, New York City Office of Budget Operations and Review, 1991–92 Fiscal Year

Outliers Eliminated:
Total Spending: ≥3700; ≤1600
Total Teacher Spending: ≥3500; ≤1000

TABLE 31

Pupil Weighted Summary Measures: Spending Per Pupil   Funding File: General Eduation
New York City Middle/Junior High Schools: Within Each District   Variable: Total Spending

District	Observations	Mean	Maximum	Minimum	Range	Standard Deviation	Coefficient of Variation
1	schools: 4; pupils: 2,499	3,028.8	3,382.0	2,831.5	550.5	208.7	0.07
2	schools: 6; pupils: 5,298	2,562.5	2,743.1	2,102.9	640.2	181.4	0.07
3	schools: 2; pupils: 2,333	1,956.9	2,034.6	1,853.6	181.1	89.7	0.05
4	schools: 3; pupils: 3,214	2,011.4	2,384.5	1,616.8	767.7	355.3	0.18
5	schools: 2; pupils: 2,148	2,361.8	2,481.5	2,258.3	223.2	111.3	0.05
6	schools: 6; pupils: 6,691	2,745.8	3,344.0	2,336.6	1,007.3	270.3	0.10
7	schools: 6; pupils: 3,435	2,801.2	3,358.4	2,412.6	945.8	349.7	0.12
8	schools: 7; pupils: 5,371	2,748.6	3,097.7	2,432.8	664.9	246.2	0.09
9	schools: 8; pupils: 8,065	2,618.7	3,250.9	2,262.4	998.5	274.1	0.10
10	schools: 8; pupils: 8,966	2,833.4	3,103.9	2,633.0	470.9	139.1	0.05
11	schools: 7; pupils: 7,155	2,628.5	2,903.9	2,456.8	447.1	169.0	0.06
12	schools: 4; pupils: 3,544	1,744.9	3,088.6	2,488.4	600.3	234.3	0.13
13	schools: 4; pupils: 2,919	2,781.7	3,256.4	2,608.1	648.3	221.8	0.08
14	schools: 6; pupils: 4,587	2,726.8	3,004.2	2,420.2	584.0	183.7	0.07
15	schools: 5; pupils: 3,852	2,819.7	3,087.7	2,631.8	455.9	168.1	0.06
16	schools: 3; pupils: 1,861	2,807.6	3,514.7	2,604.9	909.7	332.3	0.12
17	schools: 7; pupils: 7,755	2,492.8	3,008.7	2,287.6	721.0	236.2	0.09
18	schools: 5; pupils: 5,048	2,512.8	2,892.7	2,193.6	699.1	263.2	0.10
19	schools: 6; pupils: 4,540	2,956.8	3,311.0	2,791.9	519.0	119.5	0.04
20	schools: 6; pupils: 7,758	2,492.3	2,918.5	2,242.4	676.1	216.9	0.09
21	schools: 6; pupils: 6,392	2,676.5	3,224.4	2,427.5	796.9	232.2	0.09
22	schools: 5; pupils: 6,447	2,487.7	2,820.9	2,302.4	518.5	165.9	0.07
23	schools: 4; pupils: 3,012	2,734.8	3,083.7	2,594.4	489.3	182.5	0.07
24	schools: 6; pupils: 3,683	2,478.7	2,657.0	2,297.6	359.4	136.6	0.06
25	schools: 6; pupils: 5,817	2,641.6	3,059.8	2,300.2	759.6	236.5	0.09
26	schools: 5; pupils: 4,841	2,549.3	2,689.1	2,408.2	280.9	116.4	0.05
27	schools: 6; pupils: 7,290	2,647.4	3,112.8	2,363.2	749.6	248.7	0.09
28	schools: 5; pupils: 4,717	2,728.5	3,412.6	2,355.5	1,057.1	386.4	0.14
29	schools: 5; pupils: 6,688	2,366.7	2,664.1	2,169.4	494.7	171.9	0.07
30	schools: 5; pupils: 5,362	2,679.0	3,077.8	2,393.8	684.0	250.0	0.09
31	schools: 10; pupils: 9,925	2,768.3	3,620.9	2,481.6	1,139.3	303.5	0.11
32	schools: 5; pupils: 5,009	2,700.0	2,961.6	2,458.6	503.0	194.2	0.07

Source Data: Community School Districts; School Budgets, NYC Office of Budget Operations and Review, 1991 – 92 Fiscal Year

TABLE 32

Pupil Weighted Summary Measures: Teacher Spending Per Pupil
New York City Middle/Junior High Schools: Within Each District

Funding File: General Education
Variable: Total Teacher Spending

District	Observations	Mean	Maximum	Minimum	Range	Standard Deviation	Coefficient of Variation
1	schools: 4; pupils: 2,499	2,342.8	2,657.1	2,243.6	413.5	153.3	0.07
2	schools: 6; pupils: 5,298	2,136.2	2,415.2	1,749.8	665.3	176.8	0.08
3	schools: 2; pupils: 2,333	1,681.7	1,818.6	1,499.9	318.7	157.8	0.09
4	schools: 4; pupils: 3,214	1,675.2	1,933.7	1,435.3	498.4	220.9	0.13
5	schools: 2; pupils: 2,148	2,060.8	2,173.6	1,963.2	210.4	104.9	0.05
6	schools: 6; pupils: 6,691	2,179.3	2,624.8	1,817.7	807.1	214.8	0.10
7	schools: 6; pupils: 3,435	2,275.5	2,844.5	2,001.5	843.0	299.2	0.13
8	schools: 7; pupils: 5,371	2,058.4	2,318.0	1,734.7	583.4	162.6	0.08
9	schools: 8; pupils: 8,065	2,119.9	2,662.0	1,917.3	744.7	198.2	0.09
10	schools: 8; pupils: 8,966	2,286.8	2,538.2	2,012.7	525.5	143.7	0.06
11	schools: 7; pupils: 7,155	2,119.8	2,381.2	1,933.0	448.2	155.9	0.07
12	schools: 4; pupils: 3,544	1,960.1	2,236.0	1,799.8	436.2	159.9	0.08
13	schools: 4; pupils: 2,919	2,164.8	2,504.9	1,939.8	565.1	187.6	0.09
14	schools: 6; pupils: 4,587	2,270.2	2,445.3	2,117.1	428.2	125.9	0.06
15	schools: 5; pupils: 3,852	2,187.3	2,418.6	2,036.1	382.4	137.0	0.06
16	schools: 3; pupils: 1,861	2,300.5	2,677.2	2,201.0	476.3	175.9	0.08
17	schools: 7; pupils: 7,755	1,974.4	2,326.0	1,758.8	567.3	173.5	0.09
18	schools: 5; pupils: 5,048	2,032.4	2,298.2	1,869.4	428.8	166.5	0.08
19	schools: 6; pupils: 4,540	2,268.7	2,345.7	2,135.2	210.5	69.4	0.03
20	schools: 6; pupils: 7,758	2,029.9	2,414.7	1,815.9	598.8	187.1	0.09
21	schools: 6; pupils: 6,392	2,144.1	2,347.6	1,967.9	379.6	132.5	0.06
22	schools: 5; pupils: 6,447	2,028.9	2,239.1	1,833.5	405.5	121.6	0.06
23	schools: 4; pupils: 3,012	2,191.4	2,420.0	2,062.4	357.6	126.8	0.06
24	schools: 6; pupils: 8,683	1,896.4	2,079.0	1,727.0	352.0	115.3	0.06
25	schools: 6; pupils: 5,817	2,058.8	2,316.9	1,820.1	496.7	154.1	0.07
26	schools: 5; pupils: 4,841	2,024.8	2,150.7	1,919.7	231.0	77.3	0.04
27	schools: 6; pupils: 7,290	2,023.6	2,405.0	1,797.9	607.1	189.2	0.09
28	schools: 5; pupils: 4,717	2,128.6	2,539.5	1,879.9	659.7	237.9	0.11
29	schools: 5; pupils: 6,688	1,960.8	2,170.6	1,795.0	375.6	135.2	0.07
30	schools: 5; pupils: 5,362	2,111.7	2,426.7	1,942.5	484.2	173.6	0.09
31	schools: 10; pupils: 9,925	2,184.2	2,832.4	1,971.8	860.6	219.5	0.10
32	schools: 5; pupils: 5,009	2,135.7	2,267.8	1,992.2	275.6	124.5	0.06

Source Data: Community School Districts, School Budgets, NYC Office of Budget Operations & Review, 1991 – 92 Fiscal Year

TABLE 33
RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS OF PER PUPIL TOTAL SCHOOL SPENDING AND PER PUPIL TOTAL TEACHER SPENDING IN MIDDLE/JUNIOR HIGH SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE
1991-92

	Total School GE Budget Per Pupil	Total School GE Teacher Budget Per Pupil
Regression Coefficient	349.1	292.5
Result of a 50 percentage point difference in free lunch	$174.6	$146.3
"High" poverty school	$2,725	$2,170
"Low" poverty school	$2,550	$2,024
Simple Correlation	.248	.255
Coefficient of determination	.061	.065
Number of pupils	170,153	172,270

Note: Mean value of free lunch (pupil weighted) is .525.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 34

BUDGETED GENERAL EDUCATION POSITIONS
ALL COMMUNITY SCHOOL DISTRICTS
1991-92

Service Type	General Education Positions	Pupils Per General Education Position
Teachers	28,930	21.61
Secretary	1,748	357.57
Counselling	461	1,355.84
Administration	552	1,132.32
Assistant Principal	1,018	613.99
Principal	800	781.30
Paid Leaves	705	886.58
Community Relations	57	10,965.61
Other Peds	52	12,020.00
TOTAL	34,323	18.21

Source: New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page 5-3.

TABLE 35

ALLOCATED GENERAL EDUCATION POSITIONS
ALL COMMUNITY SCHOOL DISTRICTS
1991-92

Service Type	General Education Positions	Pupils Per General Education Position
Teachers	28,241	22.13
Secretary	1,670	374.28
Counselling	466	1,341.29
Administration	507	1,232.82
Assistant Principal	972	643.05
Principal	776	805.46
Paid Leaves	464	1,347.07
Community Relations	54	11,574.81
Other Peds	0	not applicable
TOTAL	33,150	18.85

Source: New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page 5-4.

TABLE 36

DISTRICT-LEVEL POSITIONS, BY DISTRICT
GENERAL EDUCATION
1991-92

District Number	GE Total District Positions	GE School Allocation Positions	GE District Office Positions	GE Unallocated Positions
1	472	439	28	5
2	942	934	17	-9
3	743	637	0	106
4	765	729	27	9
5	723	576	0	147
6	1151	1109	21	21
7	807	732	23	52
8	1033	957	26	50
9	1524	1463	25	36
10	1898	1732	61	105
11	1236	1159	32	45
12	857	813	17	27
13	873	836	11	26
14	951	901	9	41
15	1066	1016	37	13
16	580	540	16	24
17	1410	1349	35	26
18	890	839	22	29
19	1172	1138	19	15
20	1229	1158	28	43
21	1126	1079	18	29
22	1273	1077	16	180
23	723	688	25	10
24	1363	1320	45	-2
25	1096	1050	24	22
26	708	684	17	7
27	1510	1438	29	43
28	1138	1090	29	19
29	1248	1180	65	3
30	1205	1145	52	8
31	1761	1701	31	29
32	850	813	23	14

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools

TABLE 37

DISTRICT-LEVEL PUPILS PER POSITION
GENERAL EDUCATION
1991-92

	GE Total Pupils Per Position	GE School Allocation Pupils Per Position	GE District Office Pupils Per Position	GE Unallocated Pupils Per Position
Mean	18.22	19.36	844.0	419.0
Maximum	19.63	21.80	1,886.2	7,590.7
Minimum	16.19	17.85	320.2	-13,294.0
Range	3.43	3.95	1,566.0	20,885
Standard deviation	.720	.866	332.5	3,247
Coefficient of variation	0.04	0.04	0.39	7.75
Number of districts	32	32	30	32
Number of pupils	624,497	624,497	599,166	624,497

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools

TABLE 38

DISTRICT-LEVEL PUPILS PER POSITION, BY DISTRICT GENERAL EDUCATION, 1991-92

District Number	GE Unallocated Pupils Per Position	GE Total District Pupils Per Position	GE School Allocation Pupils Per Position	GE District Office Pupils Per Position
1	19.00	20.42	320	1793
2	19.63	19.79	1087	-2054
3	17.94	20.93	0	126
4	17.02	17.86	482	1447
5	16.60	20.83	0	82
6	18.93	19.64	1037	1037
7	16.19	17.85	568	251
8	18.27	19.72	726	377
9	17.55	18.29	1070	743
10	18.19	19.93	566	329
11	17.54	18.70	677	482
12	18.80	19.82	948	597
13	17.66	18.44	1402	593
14	17.85	18.84	1886	414
15	17.43	18.28	502	1429
16	18.03	19.36	654	436
17	18.36	19.19	739	995
18	17.97	19.07	727	552
19	18.36	18.91	1133	1435
20	18.15	19.26	797	519
21	17.89	18.67	1119	695
22	18.44	21.80	1467	130
23	17.10	17.97	495	1236
24	19.51	20.14	591	-13,294
25	19.33	20.18	883	963
26	19.02	19.69	792	1924
27	18.90	19.84	984	664
28	18.30	19.11	718	1096
29	18.25	19.30	350	7591
30	18.47	19.44	428	2783
31	18.26	18.91	1037	1109
32	17.74	18.44	652	1071

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools.

TABLE 39

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF PUPILS PER POSITION FOR TOTAL DISTRICT, SCHOOL ALLOCATION, DISTRICT OFFICE, AND UNALLOCATED WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Total Pupils Per Position	GE School Allocation Pupils Per Position	GE District Office Pupil Per Position	GE Unallocated Pupils Per Position
Regression coefficient	-1.72	-1.38	-41.6	-1470
Result of a 50 percentage point change in free lunch	-.86	-.69	-20.8	735
"High" poverty district	17.88	19.08	835	843
"Low" poverty district	18.74	19.77	856	1,578
Simple correlation	-.430	-.286	-.023	-.189
Coefficient of determination	.185	.082	.001	.036
Number of pupils	624,497	624,497	599,166	579,422

Note: Mean value of free lunch (pupil weighted) is .598, except in the district office regression in which it equals .595 and in the unallocated regression in which it equals .607.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Position File, and 1990-91 School Profiles, New York City Public Schools

TABLE 40

DISTRICT-LEVEL SCHOOL ALLOCATION POSITIONS PER PUPIL
TOTAL, DIRECT, AND INDIRECT
GENERAL EDUCATION
1991-92

	GE School Allocation Pupils Per Position	GE Direct School Allocation Pupils Per Position	GE Indirect School Allocation Pupils Per Position
Mean	19.36	21.66	185.8
Maximum	21.80	23.84	266.6
Minimum	17.85	19.44	141.4
Range	3.95	4.40	125.3
Standard deviation	.866	.948	28.1
Coefficient of variation	0.04	0.04	0.15
Number of districts	32	32	32
Number of pupils	624,497	624,497	624,497

Note: For definitions of direct and indirect, see text.

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools

TABLE 41

DISTRICT-LEVEL SCHOOL ALLOCATIONS POSITIONS PER PUPIL, BY DISTRICT, TOTAL, DIRECT, AND INDIRECT GENERAL EDUCATION, 1991-92

District Number	GE School Allocation Pupils Per Position	GE Direct School Allocation Pupils Per Position	GE Indirect School Allocation Pupils Per Position
1	20.42	23.72	147
2	19.79	21.65	231
3	20.93	22.71	267
4	17.86	19.44	221
5	20.83	23.03	218
6	19.64	21.96	186
7	17.85	19.86	177
8	19.72	22.68	151
9	18.29	20.95	144
10	19.93	22.31	187
11	18.70	20.82	184
12	19.82	23.05	141
13	18.44	20.56	179
14	18.84	21.71	143
15	18.28	20.28	186
16	19.36	21.74	177
17	19.19	21.18	204
18	19.07	21.27	184
19	18.91	21.22	174
20	19.26	21.82	164
21	18.67	21.34	149
22	21.80	23.84	255
23	17.97	20.01	177
24	20.14	22.40	200
25	20.18	22.51	194
26	19.69	21.86	198
27	19.84	22.14	191
28	19.11	21.54	169
29	19.30	21.54	185
30	19.44	21.14	204
31	19.91	21.20	175
32	18.44	20.40	192

For definition and sources, see Table 40.

TABLE 42

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL, DIRECT, AND INDIRECT SCHOOL ALLOCATION PUPILS PER POSITION WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	GE Total School Allocation Pupils Per Position	GE Direct School Allocation Pupils Per Position	GE Indirect School Allocation Pupils Per Position
Regression coefficient	-1.38	-.96	-47.56
Result of a 50 percentage point change in free lunch	-.69	-.48	-23.78
"High" poverty district	19.08	21.46	176.2
"Low" poverty district	19.77	21.94	200.0
Simple correlation	-.286	-.182	-.304
Coefficient of determination	.082	.033	.093
Number of pupils	624,497	624,497	624,497

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Position File, and 1990-91 School Profiles, New York City Public Schools

TABLE 43

DISTRICT-LEVEL PUPILS PER TEACHING POSITION, ALLOCATION TO SCHOOLS AND DISTRICT BUDGET
GENERAL EDUCATION
1991-92

	GE Pupils Per Teaching Position, School Allocation	GE Pupils Per Teaching Position, District Budget
Mean	22.35	21.63
Maximum	25.19	24.5
Minimum	19.94	18.97
Range	5.244	5.53
Standard deviation	1.005	.962
Coefficient of variation	0.05	0.04
Number of districts	32	32
Number of pupils	624,497	624,497

Note: For definitions, see text.

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools

TABLE 44

DISTRICT-LEVEL PUPILS PER TEACHING POSITION, BY DISTRICT ALLOCATION TO SCHOOLS AN DISTRICT BUDGET GENERAL EDUCATION, 1991-92

District Number	GE Pupils Per Teaching Position, School Allocation	GE Pupils Per Teaching Position, District Budget
1	25.19	24.50
2	22.41	22.66
3	22.87	20.29
4	19.94	19.49
5	23.08	19.45
6	22.60	22.20
7	20.01	18.97
8	23.36	22.44
9	21.35	21.03
10	23.06	21.37
11	21.92	21.25
12	23.80	22.96
13	21.57	20.81
14	22.13	21.25
15	21.25	21.04
16	22.06	21.34
17	21.79	21.32
18	22.25	21.47
19	21.70	21.39
20	22.24	21.82
21	21.62	21.39
22	24.31	21.78
23	20.30	20.24
24	23.30	22.98
25	23.25	22.95
26	22.82	22.59
27	23.33	22.66
28	22.30	21.83
29	21.79	21.34
30	22.55	21.80
31	22.09	21.91
32	21.41	21.12

For definitions and sources, see Table 43.

TABLE 45

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF PUPILS PER TEACHING POSITION, SCHOOL ALLOCATION AND DISTRICT BUDGET, WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Pupils Per Teaching Position, School Allocation	GE Pupils Per Teaching Position, District Budget
Regression coefficient	-1.42	-2.08
Result of a 50 percentage point change in free lunch	-.71	-1.04
"High" poverty district	22.06	21.21
"Low" poverty district	22.77	22.25
Simple correlation	-.254	-.390
Coefficient of determination	.065	.152
Number of pupils	624,497	624,497

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Position File, and 1990-91 School Profiles, New York City Public Schools

TABLE 46

DISTRICT-LEVEL PUPILS PER POSITION FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS
GENERAL EDUCATION
1991-92

	GE Direct School Allocations Pupils Per Position	GE Indirect School Allocations Pupils Per Position	GE Pupils Per Teaching Position, School Allocation	GE Total School Allocation Pupils Per Position
Mean	23.22	195.29	23.78	20.70
Maximum	27.17	315.41	28.74	24.44
Minimum	19.33	144.78	19.77	17.76
Range	7.844	170.6	8.969	6.673
Standard deviation	1.347	33.63	1.431	1.199
Coefficient of variation	0.06	0.17	0.06	0.06
Number of districts	32	32	32	32
Number of pupils	454,083	454,083	454,083	454,083

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools

TABLE 47

DISTRICT-LEVEL PUPILS PER POSITION FOR SCHOOL ALLOCATIONS TO MIDDLE JUNIOR HIGH SCHOOLS
GENERAL EDUCATION
1991-92

	GE Direct School Allocations Pupils Per Position	GE Indirect School Allocations Pupils Per Position	GE Pupils Per Teaching Position, School Allocation	GE Total School Allocation Pupils Per Position
Mean	18.56	169.5	19.45	16.67
Maximum	28.99	411.8	28.99	25.44
Minimum	14.74	120.8	15.00	13.52
Range	14.25	291.0	13.99	11.92
Standard deviation	1.850	43.32	1.903	1.608
Coefficient of variation	0.10	0.26	0.10	0.10
Number of districts	32	32	32	32
Number of pupils	170,414	170,414	170,414	170,414

Source: 1991-92 District and School Budget Data, Position File, New York City Public Schools

TABLE 48

DISTRICT-LEVEL PUPILS PER POSITION FOR SCHOOL ALLOCATION TO ELEMENTARY SCHOOLS GENERAL EDUCATION, 1991-92

District Number	GE Direct School Allocations Pupils Per Position	GE Indirect School Allocations Pupils Per Position	GE Pupils Per Teaching Position, School Allocations	GE Total School Allocation Pupils Per Position
1	27	154	29	23
2	23	241	23	21
3	24	235	24	22
4	19	219	20	18
5	22	221	22	20
6	24	198	25	22
7	233	182	23	20
8	23	169	24	21
9	23	152	23	20
10	25	203	26	23
11	23	196	24	20
12	25	149	25	21
13	22	184	23	19
14	24	146	24	20
15	21	196	22	19
16	24	187	24	21
17	23	224	24	21
18	23	203	24	20
19	23	183	23	20
20	23	156	23	20
21	23	145	23	20
22	26	315	27	24
23	22	187	22	19
24	23	211	24	21
25	24	205	25	22
26	23	205	23	21
27	24	193	25	21
28	23	190	24	20
29	22	183	22	20
30	23	211	24	21
31	22	185	23	20
32	23	192	24	20

For definitions and sources, see Table 46.

TABLE 49

DISTRICT-LEVEL PUPILS PER POSITION FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS GENERAL EDUCATION, 1991-92

District Number	GE Direct School Allocations Pupils Per Position	GE Indirect School Allocations Pupils Per Position	GE Pupils Per Teaching Position, School Allocations	GE Total School Allocation Pupils Per Position
1	18	132	19	16
2	19	207	20	18
3	19	412	20	19
4	20	224	20	18
5	29	208	29	25
6	17	157	18	15
7	15	164	15	14
8	21	121	22	18
9	17	124	18	15
10	17	152	17	15
11	18	163	19	16
12	19	122	20	16
13	17	162	18	15
14	18	135	18	16
15	18	154	20	16
16	16	143	16	14
17	18	169	19	16
18	19	153	20	17
19	17	146	17	15
20	20	180	21	18
21	18	160	19	16
22	19	170	20	17
23	16	151	17	15
24	21	181	22	18
25	19	171	20	17
26	20	186	22	18
27	19	187	20	17
28	18	124	19	16
29	20	191	21	18
30	18	185	19	16
31	19	155	21	17
32	17	193	18	16

For definitions and sources, see Table 47.

TABLE 50

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF PUPILS PER POSITION FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Direct School Allocation Pupils Per Position	GE Indirect School Allocations Pupils Per Position	GE Pupils Per Teaching Position, School Allocation	GE Total School Allocation Pupils Per Position
Regression coefficient	.182	-47.0	.129	-.445
Result of a 50 percentage point change in free lunch	.091	-23.5	.065	-.223
"High" poverty district	23.25	187.3	23.80	20.62
"Low" poverty district	23.15	210.8	23.74	20.84
Simple correlation	.026	-.271	.017	-.072
Coefficient of determination	.001	.073	.0003	.005
Number of pupils	454,083	454,083	454,083	454,083

Note: Mean value of free lunch (pupil weighted) is .629.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Position File, and 1990-91 School Profiles, New York City Public Schools

TABLE 51

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF PUPILS PER POSITION FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Direct School Allocation Pupils Per Position	GE Indirect School Allocations Pupils Per Position	GE Pupils Per Teaching Position, School Allocation	GE Total School Allocation Pupils Per Position
Regression coefficient	-4.22	-75.55	-5.53	-4.20
Result of a 50 percentage point change in free lunch	2.11	-37.78	-2.77	-2.10
"High" poverty district	17.37	148.3	17.90	15.49
"Low" poverty district	19.49	186.1	20.66	17.59
Simple correlation	-.366	-.279	-.465	-.418
Coefficient of determination	.134	.078	.217	.175
Number of pupils	170,414	170,414	170,414	170,414

Note: Mean value of free lunch (pupil weighted) is .520.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Position File, and 1990-91 School Profiles, New York City Public Schools

TABLE 52

Pupils Weighted Summary Measures
Pupils per Position
Across All New York City Elementary Schools
Funding File: GE Positions

Variable:	GE Total	GE Teachers
Mean:	20.5	23.4
Maximum:	25.0	28.0
Minimum:	12.0	13.0
Range:	13.0	15.0
Standard Deviation:	2.0	2.3
Coefficient of Variation:	0.10	0.10
Number of Schools:	569	569
Number of Pupils:	405,836	405,836

SOURCE DATA: Community School Districts, School Budgets, NYC Office of Budget Operations and Review, 1991 – 92 Fiscal Year

Outliers Eliminated:
GE Total: ≥25, ≤10 and GE Teachers: ≥28, ≤12

TABLE 53
RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS OF PUPILS PER GE POSITIONS AND PUPILS PER GE TEACHER POSITIONS IN ELEMENTARY SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE
1991-92

	Pupils Per GE Positions	Pupils Per GE Teacher Positions
Regression Coefficient	-0.72	-.61
Result of a 50 percentage point difference in free lunch	-0.36	-.31
"High" poverty school	20.44	23.32
"Low" poverty school	20.80	23.63
Simple Correlation	-.089	-.070
Coefficient of determination	.009	.005
Number of pupils	422,828	404,999

Note: Mean value of free lunch (pupil weighted) is .629.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 54

Pupil Weighted Summary Measures
Pupils per Position
Across All New York City Middle/Junior High Schools
Funding File: GE Positions

Variable:	GE Total	GE Teachers
Mean:	16.7	19.5
Median:	16.8	19.6
Mode:	19.6	22.6
Maximum:	25.0	26.4
Minimum:	11.8	13.7
Range:	13.2	12.7
Standard Deviation:	1.9	2.2
Coefficient of Variation:	0.11	0.11
Number of Schools:	169	169
Number of Pupils:	167,877	167,877

SOURCE DATA: Community School Districts, School Budgets, NYC Office of Budget Operations and Review, 1991–92 Fiscal Year

Outliers Eliminated:
GE Total: ≥25, ≤10 and GE Teachers: ≥28, ≤12

TABLE 55

RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS OF PUPILS PER GE POSITIONS AND PUPILS PER GE TEACHER POSITIONS IN MIDDLE/JUNIOR HIGH SCHOOLS WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Pupils Per GE Positions	Pupils Per GE Teacher Positions
Regression Coefficient	-2.94	-3.79
Result of a 50 percentage point difference in free lunch	-1.47	-1.90
"High" poverty school	15.92	18.46
"Low" poverty school	17.39	20.35
Simple Correlation	-.326	-.367
Coefficient of determination	.106	.135
Number of pupils	166,808	166,808

Note: Mean value of free lunch (pupil weighted) is .521.

Source: 1991-92 District and School Budget Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 56

TOTAL REIMBURSABLE PROGRAM BUDGETS
ALL COMMUNITY SCHOOL DISTRICTS
1991-92
(in $ millions)

Program Types	Reimbursable Program Budgets	Budgets as a Percent of Total
Federal Entitlement	$329.7	49.9%
State Entitlement	$253.6	38.4%
Federal Competitive	$37.5	5.7%
State Competitive	$29.1	4.6%
Other	$10.5	1.6%
TOTAL	$660.4	100.0%

Source: New York City Public Schools, School Budgets, Community School Districts, Summary Volume, 1992, page 3-6.

TABLE 57

DISTRICT-LEVEL BUDGETS PER PUPIL REIMBURSABLE PROGRAMS 1991-92

	Total District RE Budget Per Pupil	RE School Allocation Per Pupil	RE District Office Budget Per Pupil	RE Unallocated Budget Per Pupil
Mean	$1,058	$547	$153	$357
Maximum	$1,941	$1,046	$353	$782
Minimum	$355	$214	$50	$91
Range	$1,586	$832	$303	$692
Standard deviation	$362.2	$185.4	$69.4	$168.2
Coefficient of variation	0.34	0.34	0.45	0.47
Number of districts	32	32	32	32
Number of pupils	625,040	625,040	625,040	625,040

Source: 1991-92 District and School Budget Data, Reimbursable Program File, New York City Public Schools

TABLE 58

DISTRICT-LEVEL BUDGETS PER ELIGIBLE PUPIL
REIMBURSABLE PROGRAMS
1991-92

	Total District RE Budget Per Eligible Pupil	RE School Allocation Per Eligible Pupil	RE District Office Budget Per Eligible Pupil	RE Unallocated Budget Per Eligible Pupil
Mean	$2,494	$1,292	$361	$840
Maximum	$3,785	$1,964	$874	$1,383
Minimum	$1,715	$818	$193	$437
Range	$2,070	$1,147	$681	$946
Standard deviation	$391.5	$268.9	$128.9	$242.1
Coefficient of variation	0.16	0.21	0.36	0.29
Number of districts	32	32	32	32
Number of pupils	264,831	264,831	264,831	264,831

Source: 1991-92 District and School Budget Data, Reimbursable Program File, New York City Public Schools

TABLE 59

DISTRICT-LEVEL REIMBURSABLE PROGRAM BUDGETS PER PUPIL BY DISTRICT, 1991-92

District Number	Total District RE Budget Per Pupil	RE School Allocation Per Pupil	RE District Office Budget Per Pupil	RE Unallocated Budget Per Pupil
1	$1,941	$1,046	$353	$542
2	$1,100	$636	$171	$293
3	$1,640	$748	$322	$570
4	$1,267	$485	$232	$551
5	$1,487	$728	$116	$611
6	$1,532	$857	$259	$399
7	$1,669	$662	$225	$782
8	$1,163	$585	$172	$405
9	$1,486	$858	$220	$408
10	$1,304	$617	$146	$540
11	$669	$305	$125	$239
12	$1,582	$533	$307	$742
13	$986	$556	$100	$330
14	$1,193	$578	$94	$522
15	$1,188	$691	$179	$317
16	$1,193	$657	$216	$319
17	$983	$568	$152	$263
18	$1,175	$610	$271	$294
19	$1,250	$706	$182	$363
20	$1,013	$585	$85	$343
21	$1,009	$593	$129	$288
22	$639	$357	$105	$176
23	$1,312	$602	$128	$581
24	$871	$493	$145	$234
25	$578	$304	$80	$194
26	$392	$218	$78	$95
27	$792	$451	$115	$226
28	$871	$292	$85	$494
29	$628	$304	$155	$168
30	$1,023	$646	$103	$274
31	$355	$214	$50	$91
32	$1,335	$645	$113	$577

Source: See Table 57.

TABLE 60.

DISTRICT-LEVEL REIMBURSABLE PROGRAM BUDGETS PER ELIGIBLE PUPILS BY DISTRICT, 1991-92

District Number	Total District RE Budget Per Eligible Pupil	RE School Allocation Per Eligible Pupil	RE District Office Budget Per Eligible Pupil	RE Unallocated Budget Per Eligible Pupil
1	$3,477	$1,874	$633	$971
2	$3,198	$1,850	$496	$851
3	$3,128	$1,427	$614	$1,087
4	$2,684	$1,026	$491	$1,167
5	$2,484	$1,270	$193	$1,020
6	$2,552	$1,455	$432	$665
7	$2,741	$1,087	$370	$1,285
8	$2,433	$1,225	$361	$847
9	$2,409	$1,391	$357	$661
10	$2,284	$1,081	$257	$946
11	$1,827	$833	$342	$652
12	$2,665	$898	$518	$1,250
13	$2,549	$1,437	$260	$853
14	$2,654	$1,285	$208	$1,160
15	$2,819	$1,640	$426	$753
16	$2,921	$1,609	$530	$782
17	$2,233	$1,289	$346	$598
18	$3,784	$1,964	$874	$946
19	$2,492	$1,407	$363	$723
20	$2,670	$1,542	$223	$905
21	$2,572	$1,510	$329	$733
22	$2,034	$1,138	$334	$562
23	$2,714	$1,246	$266	$1,203
24	$2,003	$1,132	$332	$538
25	$2,321	$1,221	$320	$779
26	$2,566	$1,430	$514	$623
27	$2,030	$1,156	$294	$579
28	$2,440	$818	$239	$1,383
29	$2,097	$1,015	$519	$563
30	$2,782	$1,757	$281	$744
31	$1,715	$1,034	$243	$437
32	$2,524	$1,219	$214	$1,091

Source: See Table 58.

TABLE 61

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS, REIMBURSABLE PROGRAM BUDGETS PER PUPIL, OF TOTAL DISTRICT BUDGET, SCHOOL ALLOCATION, DISTRICT OFFICE BUDGET, AND UNALLOCATED BUDGET WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Total District RE Budget Per Pupil	RE School Allocation Per Pupil	RE District Office Budget Per Pupil	RE Unallocated Budget Per Pupil
Regression coefficient	1,730	793	219	714
Result of a 50 percentage point difference in free lunch	$865	$396.5	$109.5	$357
"High" poverty district	$1,408	$708	$198	$501
"Low" poverty district	$543	$311	$88	$144
Simple correlation	.859	.769	.568	.763
Coefficient of determination	.738	.591	.322	.582
Number of pupils	625,040	625,040	625,040	625,040

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Reimbursable Programs File, and 1990-91 School Profiles, New York City Public Schools

TABLE 62

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS, REIMBURSABLE PROGRAM BUDGETS PER ELIGIBLE PUPIL, OF TOTAL DISTRICT BUDGET, SCHOOL ALLOCATION, DISTRICT OFFICE BUDGET, AND UNALLOCATED BUDGET WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Total District RE Budget Per Eligible Pupil	RE School Allocation Per Eligible Pupil	RE District Office Budget Per Eligible Pupil	RE Unallocated Budget Per Eligible Pupil
Regression coefficient	744.5	87	13.4	644
Result of a 50 percentage point difference in free lunch	$372	$43.5	$6.7	$322
"High" poverty district	$2,611	$1,306	$363	$941
"Low" poverty district	$2,238	$1,262	$357	$619
Simple correlation	.303	.052	.017	.423
Coefficient of determination	.092	.003	.000	.179
Number of pupils	264,831	264,831	264,831	264,831

Note: Mean value of free lunch (pupil weighted) is .643.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Reimbursable Programs File, and 1990-91 School Profiles, New York City Public Schools

TABLE 63

DISTRICT-LEVEL BUDGETS PER PUPIL REIMBURSABLE PROGRAMS, BY PROGRAM TYPE 1991-92

	Federal Entitlement	State Entitlement	Federal Competitive	State Competitive	Other
Mean	$529	$407	$60	$47	$17
Maximum	$914	$626	$490	$135	$31
Minimum	$59	$170	$0	$5	$6
Range	$854	$456	$490	$130	$25
Standard deviation	$240.7	$116.8	$104.0	$31.3	5.4
Coefficient of variation	0.46	0.29	1.73	0.67	0.32
Number of districts	32	32	32	32	32
Number of pupils	625,040	625,040	625,040	625,040	625,040

Source: 1991-92 District and School Budget Data, Reimbursable Program File, New York City Public Schools

TABLE 64

DISTRICT-LEVEL BUDGETS PER ELIGIBLE PUPIL REIMBURSABLE PROGRAMS, BY PROGRAM TYPE 1991-92

	Federal Entitlement	State Entitlement	Federal Competitive	State Competitive	Other
Mean	$1,245	$958	$142	$110	$40
Maximum	$1,750	$1,283	$1,581	$321	$147
Minimum	$389	$763	$0	$13	$25
Range	$1,361	$521	$1,581	$309	$122
Standard deviation	$276.7	$108.0	$275.9	$74.7	$14.2
Coefficient of variation	0.22	0.11	1.94	0.68	0.36
Number of districts	32	32	32	32	32
Number of pupils	264,831	264,831	264,831	264,831	264,831

Source: 1991-92 District and School Budget Data, Reimbursable Program File, New York City Public Schools

TABLE 65

DISTRICT-LEVEL REIMBURSABLE PROGRAM BUDGETS PER PUPIL BY PROGRAM TYPE, DISTRICT, 1991-92

District Number	Federal Entitlement	State Entitlement	Federal Competitive	State Competitive	Other
1	$844	$606	$355	$105	$31
2	$389	$389	$254	$51	$18
3	$761	$474	$285	$101	$19
4	$706	$433	$22	$87	$19
5	$844	$514	$39	$67	$24
6	$868	$596	$10	$36	$23
7	$914	$626	$24	$84	$22
8	$636	$457	$47	$0	$23
9	$863	$561	$9	$34	$20
10	$733	$523	$14	$9	$25
11	$328	$280	$32	$17	$136
12	$901	$582	$12	$68	$19
13	$594	$322	$9	$47	$14
14	$700	$419	$10	$45	$19
15	$598	$411	$15	$135	$28
16	$715	$379	$0	$82	$17
17	$588	$376	$1	$6	$12
18	$339	$262	$490	$75	$9
19	$702	$471	$21	$36	$20
20	$350	$413	$157	$82	$11
21	$471	$449	$18	$59	$13
22	$253	$300	$36	$36	$13
23	$767	$414	$8	$105	$8
24	$395	$444	$15	$5	$12
25	$101	$317	$144	$10	$6
26	$59	$196	$69	$45	$22
27	$410	$311	$19	$41	$11
28	$413	$377	$24	$43	$13
29	$312	$268	$13	$19	$15
30	$385	$398	$158	$71	$11
31	$145	$170	$0	$24	$16
32	$721	$557	$0	$36	$21

Source: See Table 63.

TABLE 66

DISTRICT-LEVEL REIMBURSABLE PROGRAM BUDGETS PER ELIGIBLE PUPIL BY PROGRAM TYPE, DISTRICT, 1991-92

District Number	Federal Entitlement	State Entitlement	Federal Competitive	State Competitive	Other
1	$1,511	$1,086	$636	$188	$56
2	$1,129	$1,131	$737	$149	$51
3	$1,450	$904	$544	$193	$37
4	$1,496	$918	$46	$184	$41
5	$1,409	$858	$66	$111	$39
6	$1,445	$993	$16	$60	$38
7	$1,501	$1,028	$40	$138	$36
8	$1,331	$956	$0	$98	$48
9	$1,399	$909	$14	$56	$32
10	$1,283	$916	$25	$16	$44
11	$896	$763	$87	$47	35
12	$1,518	$981	$20	$115	$31
13	$1,535	$833	$23	$121	$36
14	$1,556	$932	$23	$100	$43
15	$1,419	$977	$36	$321	$66
16	$1,751	$927	$0	$201	$43
17	$1,336	$855	$1	$14	$28
18	$1,091	$844	$1,580	$241	$29
19	$1,400	$938	$42	$72	$40
20	$922	$1,088	$414	$217	$28
21	$1,199	$1,143	$45	$150	$34
22	$807	$954	$114	$116	$42
23	$1,587	$857	$16	$217	$38
24	$908	$1,021	$34	$13	$28
25	$406	$1,274	$577	$39	$25
26	$389	$1,283	$452	$294	$147
27	$1,051	$797	$48	$104	$29
28	$1,157	$1,058	$68	$121	$36
29	$1,044	$894	$45	$62	$52
30	$1,046	$1,083	$430	$193	$30
31	$700	$821	$0	$117	$77
32	$1,363	$1,053	$0	$69	$39

Source: See Table 64.

TABLE 67

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL DISTRICT REIMBURSABLE PROGRAM BUDGET PER PUPIL BY PROGRAM TYPE WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Federal Entitlement	State Entitlement	Federal Competitive	State Competitive	Other
Regression coefficient	1,264.5	518	-107	37	16
Result of a 50 percentage point difference in free lunch	$632	$259	$53	$18	$8
"High" poverty district	$784	$511	$39	$54	$20
"Low" poverty district	$152	$252	$92	$36	$12
Simple correlation	.946	.799	-.184	.211	.526
Coefficient of determination	.894	.638	.034	.045	.277
Number of pupils	624,078	624,078	624,078	624,078	624,078

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Reimbursable Programs File, and 1990-91 School Profiles, New York City Public Schools

TABLE 68

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL DISTRICT REIMBURSABLE PROGRAM BUDGET PER ELIGIBLE PUPIL BY PROGRAM TYPE WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Federal Entitle-ment	State Entitle-ment	Federal Competi-tive	State Competi-tive	Other
Regression coefficient	1,579	-152	-574	-86	-23
Result of a 50 percentage point difference in free lunch	$790	-$76	-$287	-$43	-$12
"High" poverty district	$1,493	$934	$52	$97	$36
"Low" poverty district	$703	$1,010	$338	$139	$48
Simple correlation	.909	-.225	-.331	-.183	-.261
Coefficient of determination	.826	.051	.110	.033	.070
Number of pupils	264,831	264,831	264,831	264,831	264,831

Note: Mean value of free lunch (pupil weighted) is .643.
For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, Reimbursable Programs File, and 1990-91 School Profiles, New York City Public Schools

TABLE 69

DISTRICT-LEVEL BUDGETS PER PUPIL GENERAL EDUCATION PLUS REIMBURSABLE PROGRAMS 1991-92

	Total District GE plus RE Budget Per Pupil	GE plus RE School Allocations Per Pupil
Mean	$3,607	$2,874
Maximum	$4,783	$3,628
Minimum	$2,930	$2,419
Range	$1,853	$1,209
Standard deviation	$382.7	$210.3
Coefficient of variation	0.11	0.07
Number of districts	32	32
Number of pupils	625,040	625,040

Source: 1991-92 District and School Budget Data, General Educationa and Reimbursable Program Files, New York City Public Schools

TABLE 70

DISTRICT-LEVEL BUDGETS PER PUPIL
GENERAL EDUCATION PLUS REIMBURSABLE PROGRAMS, 1991-92

District Number	Total District GE plus RE Budget Per Pupil	GE plus RE School Allocations Per Pupil
1	$4,783	$3,628
2	$3,633	$2,990
3	$4,171	$2,820
4	$3,791	$2,801
5	$3,920	$2,805
6	$4,026	$3,100
7	$4,354	$2,968
8	$3,829	$2,961
9	$4,010	$3,143
10	$3,895	$2,908
11	$3,240	$2,669
12	$4,175	$2,988
13	$3,438	$2,847
14	$3,791	$2,876
15	$3,886	$3,260
16	$3,615	$2,751
17	$3,506	$2,839
18	$3,728	$2,927
19	$3,793	$3,097
20	$3,598	$2,970
21	$3,554	$2,989
22	$3,053	$2,419
23	$3,810	$2,893
24	$3,424	$2,851
25	$3,047	$2,532
26	$2,930	$2,644
27	$3,301	$2,785
28	$3,321	$2,572
29	$3,191	$2,585
30	$3,439	$2,984
31	$3,025	$2,785
32	$3,868	$3,059

Source: See Table 69.

TABLE 71

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL DISTRICT GENERAL EDUCATION PLUS REIMBURSABLE PROGRAM BUDGETS PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Total District GE Plus Re Budget Per Pupil	GE plus RE School Allocations Per Pupil
Regression coefficient	1,769	680.5
Result of a 50 percentage point difference in free lunch	$884.5	$340
"High" poverty district	$3,965	$3,012
"Low" poverty district	$3,080	$2,672
Simple correlation	.831	.582
Coefficient of determination	.691	.339
Number of pupils	625,040	625,040

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education and Reimbursable Programs Files, and 1990-91 School Profiles, New York City Public Schools

TABLE 72

DISTRICT-LEVEL BUDGETS FOR TEACHERS' SALARIES PER PUPIL GENERAL EDUCATION PLUS REIMBURSABLE PROGRAMS 1991-92

	GE plus RE Teachers' Salary District Budget Per Pupil	GE plus RE Teachers' Salary School Allocations Per Pupil
Mean	$2,320	$2,189
Maximum	$2,820	$2,638
Minimum	$2,053	$1,915
Range	$767	$723
Standard deviation	$153.2	$149.5
Coefficient of variation	0.07	0.07
Number of districts	32	32
Number of pupils	625,040	625,040

Source: 1991-92 District and School Budget Data, General Educationa and Reimbursable Program Files, New York City Public Schools

TABLE 73

DISTRICT-LEVEL BUDGETS FOR TEACHERS' SALARIES PER PUPIL GENERAL EDUCATION PLUS REIMBURSABLE PROGRAMS, 1991-92

District Number	GE plus RE Teachers' Salary District Budget Per Pupil	GE plus RE Teachers' Salary School Allocations Per Pupil
1	$2,745	$2,638
2	$2,455	$2,381
3	$2,496	$2,200
4	$2,404	$2,227
5	$2,348	$2,224
6	$2,422	$2,328
7	$2,820	$2,344
8	$2,402	$2,223
9	$2,406	$2,322
10	$2,363	$2,100
11	$2,194	$2,082
12	$2,365	$2,113
13	$2,167	$2,064
14	$2,421	$2,276
15	$2,511	$2,461
16	$2,183	$2,029
17	$2,233	$2,107
18	$2,343	$2,257
19	$2,444	$2,386
20	$2,480	$2,377
21	$2,395	$2,351
22	$2,126	$1,914
23	$2,228	$2,091
24	$2,222	$2,157
25	$2,141	$1,955
26	$2,053	$2,039
27	$2,111	$2,009
28	$2,251	$2,041
29	$2,132	$2,061
30	$2,332	$2,240
31	$2,230	$2,198
32	$2,335	$2,201

Source: See Table 72.

TABLE 74

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF TOTAL DISTRICT GENERAL EDUCATION PLUS REIMBURSABLE PROGRAM BUDGETS FOR TEACHERS' SALARIES PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	GE Plus RE Teachers' Salary District Budget Per Pupil	GE plus RE Teachers' Salary School Allocations Per Pupil
Regression coefficient	461	293
Result of a 50 percentage point difference in free lunch	$230	$146
"High" poverty district	$2,413	$2,248
"Low" poverty district	$2,182	$2,101
Simple correlation	.541	.352
Coefficient of determination	.293	.124
Number of pupils	625,040	625,040

Note: Mean value of free lunch (pupil weighted) is .598. For explanation of terms, see text.

Source: 1991-92 District and School Budget Data, General Education and Reimbursable Programs Files, and 1990-91 School Profiles, New York City Public Schools

TABLE 75

DISTRICT-LEVEL BUDGETS, EXPENDITURES, EXPENDITURES LESS BUDGETS, TOTAL AND PER PUPIL, GENERAL EDUCATION, 1991-92

District	Total District GE Budget ($ thous.)	Total District Expenditures ($ thous.)	Total District Expenditures Less Budget	Total District Expenditures Less Budget Per Pupil
1	$25,482.0	$26,585.4	$1,103,416	$123
2	$46,832.4	$48,200.4	$1,368,019	$ 74
3	$33,739.8	$34,851.3	$1,111,494	$ 83
4	$32,864.4	$33,861.8	$ 997,346	$ 77
5	$31,318.6	$31,709.4	$ 390,814	$ 31
6	$54,964.0	$56,824.3	$1,860,243	$ 85
7	$35,090.5	$35,109.4	$ 18,958	$ 2
8	$50,316.8	$49,419.1	$ -897,643	$-48
9	$67,520.6	$68,373.6	$ 852,995	$ 33
10	$89,451.3	$91,566.6	$2,115,317	$ 61
11	$55,726.2	$57,549.1	$1,822,884	$ 84
12	$41,787.5	$42,481.1	$ 693,627	$ 44
13	$37,805.4	$38,204.1	$ 398,680	$ 26
14	$44,088.4	$45,356.1	$1,267,661	$ 75
15	$50,129.0	$51,846.3	$1,717,310	$ 92
16	$25,327.8	$25,619.8	$ 292,020	$ 28
17	$65,311.9	$66,347.0	$1,035,027	$ 40
18	$40,839.4	$41,776.3	$ 936,960	$ 59
19	$54,720.0	$56,105.1	$1,385,091	$ 64
20	$57,653.2	$58,145.2	$ 492,023	$ 22
21	$51,252.3	$52,594.8	$1,342,500	$ 67
22	$56,689.1	$58,260.0	$1,570,935	$ 67
23	$30,883.4	$31,179.6	$ 296,168	$ 24
24	$67,888.6	$68,514.3	$ 625,742	$ 24
25	$52,297.9	$54,348.5	$2,050,684	$ 97
26	$34,176.2	$35,777.1	$1,600,918	$119
27	$71,576.4	$73,167.4	$1,591,003	$ 58
28	$51,031.6	$52,340.1	$1,308,410	$ 63
29	$58,365.2	$59,602.5	$1,237,233	$ 54
30	$55,105.1	$56,295.6	$1,190,478	$ 53
31	$85,858.1	$88,966.8	$3,108,674	$102
32	$38,280.4	$38,525.8	$ 245,373	$ 16

Source: See Table 76.

TABLE 76

DISTRICT-LEVEL EXPENDITURES LESS BUDGET, TOTAL AND PER PUPIL, GENERAL EDUCATION 1991-92

	Total District GE Expenditures Less Budget ($ thous.)	Total District GE Expenditures Less Budget Per Pupil
Mean	$1,217.9	$56.6
Maximum	$3,108.7	$123.1
Minimum	-$897.6	-$47.6
Range	$4,006.3	$170.6
Standard deviation	$772.3	$32.9
Coefficient of variation	0.63	0.58
Number of districts	32	32
Number of pupils	620,252	620,252

Source: 1991-92 District and School Budget and Expenditures Data, General Education File, New York City Public Schools

TABLE 77

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF GENERAL EDUCATION TOTAL DISTRICT EXPENDITURES LESS BUDGET PER PUPIL, WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	Total District GE Expenditures Less Budget Per Pupil
Regression coefficient	-80.9
Result of a 50 percentage point difference in free lunch	-$40.5
"High" poverty district	$40.3
"Low" poverty district	$80.8
Simple correlation	-.440
Coefficient of determination	.194
Number of pupils	620,252

Note: Mean value of free lunch (pupil weighted) is .599. For explanation of terms, see text.

Source: 1991-92 District and School Budget and Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 78

DISTRICT-LEVEL EXPENDITURES PER PUPIL
GENERAL EDUCATION
1991-92

	Total District GE Expenditures Per Pupil	GE School Allocation Expenditures Per Pupil	GE District Office Expenditures Per Pupil
Mean	$2,627	$2,497	$131
Maximum	$2,965	$2,797	$267
Minimum	$2,450	$2,308	$58
Range	$515	$489	$210
Standard deviation	$107.6	$89.0	$56.0
Coefficient of variation	0.04	0.04	0.43
Number of districts	32	32	32
Number of pupils	620,252	620,252	620,252

Source: 1991-92 District and School Expenditures Data, General Education File, New York City Public Schools

TABLE 79

DISTRICT-LEVEL EXPENDITURES PER PUPIL BY DISTRICT GENERAL EDUCATION, 1991-92

District	Total District GE Expenditures Per Pupil	GE School Allocation Expenditures Per Pupil	GE District Office Expenditures
1	$2,965	$2,797	$168
2	$2,607	$2,524	$83
3	$2,614	$2,471	$143
4	$2,600	$2,439	$162
5	$2,528	$2,424	$104
6	$2,609	$2,392	$217
7	$2,829	$2,591	$239
8	$2,619	$2,530	$88
9	$2,633	$2,423	$210
10	$2,653	$2,545	$107
11	$2,655	$2,544	$111
12	$2,699	$2,432	$267
13	$2,478	$2,407	$71
14	$2,672	$2,526	$146
15	$2,791	$2,733	$58
16	$2,450	$2,308	$142
17	$2,563	$2,459	$105
18	$2,612	$2,475	$136
19	$2,607	$2,495	$112
20	$2,607	$2,527	$80
21	$2,611	$2,528	$83
22	$2,481	$2,419	$63
23	$2,522	$2,388	$134
24	$2,577	$2,460	$117
25	$2,566	$2,486	$80
26	$2,657	$2,562	$95
27	$2,684	$2,487	$196
28	$2,513	$2,418	$95
29	$2,617	$2,477	$140
p387X30	$2,529	$2,443	$86
31	$2,920	$2,680	$241
32	$2,569	$2,459	$110

Source: See Table 78.

TABLE 80

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF GENERAL EDUCATION TOTAL DISTRICT EXPENDITURES, SCHOOL ALLOCATION EXPENDITURES, AND DISTRICT OFFICE EXPENDITURES PER PUPIL, WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	Total District GE Expenditures Per Pupil	GE School Allocation Expenditures Per Pupil	GE District Office Expenditures Per Pupil
Regression coefficient	-78.6	-124.9	46.3
Result of a 50 percentage point difference in free lunch	-$39.3	-$62.5	$23.2
"High" poverty district	$2,611	$2,471	$140
"Low" poverty district	$2,651	$2,534	$117
Simple correlation	-.131	-.251	.148
Coefficient of determination	.017	.063	.022
Number of pupils	620,252	620,252	620,252

Note: Mean value of free lunch (pupil weighted) is .599.
For explanation of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 81

DISTRICT-LEVEL SCHOOL ALLOCATION EXPENDITURES PER PUPIL
TOTAL, DIRECT, AND INDIRECT
GENERAL EDUCATION
1991-92

	GE School Allocation Expenditures Per Pupil	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil
Mean	$2,497	$2,159	$337
Maximum	$2,797	$2,416	$433
Minimum	$2,308	$1,977	$278
Range	$489	$439	$155
Standard deviation	$89.0	$88.0	$30.9
Coefficient of variation	0.04	0.04	0.09
Number of districts	32	32	32
Number of pupils	620,252	620,252	620,252

Note: For definitions of direct and indirect, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, New York City Public Schools

TABLE 82

DISTRICT-LEVEL SCHOOL ALLOCATION EXPENDITURES PER PUPIL BY DISTRICT, GENERAL EDUCATION, 1991-92

District	GE School Allocation Expenditures Per Pupil	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil
1	$2,797	$2,364	$433
2	$2,524	$2,232	$292
3	$2,471	$2,144	$327
4	$2,439	$2,142	$297
5	$2,424	$2,105	$319
6	$2,392	$2,021	$371
7	$2,591	$2,296	$295
8	$2,530	$2,163	$367
9	$2,423	$2,091	$332
10	$2,545	$2,159	$386
11	$2,544	$2,217	$328
12	$2,432	$2,019	$413
13	$2,407	$2,052	$354
14	$2,526	$2,138	$388
15	$2,733	$2,416	$317
16	$2,308	$1,977	$331
17	$2,459	$2,139	$320
18	$2,475	$2,159	$317
19	$2,495	$2,160	$335
20	$2,527	$2,188	$339
21	$2,528	$2,183	$344
22	$2,419	$2,141	$278
23	$2,388	$2,036	$353
24	$2,460	$2,139	$321
25	$2,486	$2,144	$342
26	$2,562	$2,235	$327
27	$2,487	$2,149	$338
28	$2,418	$2,100	$319
29	$2,477	$2,166	$311
30	$2,443	$2,124	$320
31	$2,680	$2,331	$349
32	$2,459	$2,105	$354

Source: See Table 81.

TABLE 83

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF GENERAL EDUCATION SCHOOL ALLOCATION TOTAL, DIRECT, AND INDIRECT EXPENDITURES PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE School Allocation Expenditures Per Pupil	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil
Regression coefficient	-124.9	-194.5	69.5
Result of a 50 percentage point difference in free lunch	-$62.5	-$97.3	$34.7
"High" poverty district	$2,471	$2,120	$351
"Low" poverty district	$2,534	$2,217	$316
Simple correlation	-.251	-.396	.404
Coefficient of determination	.063	.157	.163
Number of pupils	620,252	620,252	620,252

Note: Mean value of free lunch (pupil weighted) is .599.
For explanation of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 84

DISTRICT-LEVEL TEACHERS' SALARY EXPENDITURES PER PUPIL, TOTAL AND ALLOCATED TO SCHOOLS, GENERAL EDUCATION
1991-92

	Total District GE Teachers' Salary Expenditures Per Pupil	School Allocation GE Teachers' Salary Expenditures Per Pupil
Mean	$1,891	$1,867
Maximum	$2,191	$2,085
Minimum	$1,774	$1,714
Range	$418	$371
Standard deviation	$103.7	$90.2
Coefficient of variation	0.05	0.05
Number of districts	32	32
Number of pupils	620,252	620,252

Source: 1991-92 District and School Expenditures Data, General Education File, New York City Public Schools

TABLE 85

DISTRICT-LEVEL TEACHERS' SALARY EXPENDITURES PER PUPIL, TOTAL AND ALLOCATED TO SCHOOLS, BY DISTRICT, GENERAL EDUCATION, 1991-92

District	Total District GE Teachers' Salary Expenditures Per Pupil	School Allocation GE Teachers' Salary Expenditures Per Pupil
1	$2,026	$2,022
2	$1,975	$1,970
3	$1,913	$1,908
4	$1,949	$1,938
5	$1,840	$1,831
6	$1,786	$1,747
7	$2,162	$2,050
8	$1,865	$1,857
9	$1,900	$1,827
10	$1,863	$1,858
11	$1,930	$1,917
12	$1,774	$1,714
13	$1,815	$1,813
14	$1,890	$1,885
15	$2,085	$2,085
16	$1,777	$1,763
17	$1,808	$1,789
18	$1,812	$1,807
19	$1,870	$1,858
20	$1,909	$1,904
21	$1,934	$1,926
22	$1,824	$1,819
23	$1,849	$1,843
24	$1,777	$1,761
25	$1,835	$1,826
26	$1,939	$1,934
27	$1,875	$1,790
28	$1,829	$1,823
29	$1,900	$1,886
30	$1,820	$1,816
31	$2,191	$2,067
32	$1,825	$1,822

Source: See Table 84.

TABLE 86

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF GENERAL EDUCATION TEACHERS' SALARY EXPENDITURES PER PUPIL, TOTAL AND ALLOCATED TO SCHOOLS, WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE 1991-92

	Total District GE Teachers' Salary Expenditures Per Pupil	School Allocation GE Teachers' Salary Expenditures Per Pupil
Regression coefficient	-170.7	-140.6
Result of a 50 percentage point difference in free lunch	-$85	-$70
"High" poverty district	$1,857	$1,838
"Low" poverty district	$1,942	$1,908
Simple correlation	-.295	-.279
Coefficient of determination	.087	.078
Number of pupils	620,252	620,252

Note: Mean value of free lunch (pupil weighted) is .599. For explanation of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 87

DISTRICT-LEVEL EXPENDITURES PER PUPIL FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS GENERAL EDUCATION 1991-92

	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil	GE Teachers' Salary Expenditures Per Pupil	GE Total School Allocation Expenditures Per Pupil
Mean	$2,024	$332	$1,746	$2,354
Maximum	$2,237	$429	$1,973	$2,586
Minimum	$1,808	$268	$1,522	$2,146
Range	$429	$161	$451	$440
Standard deviation	$100.9	$30.8	$104.2	$100.1
Coefficient of variation	0.05	0.09	0.06	0.04
Number of districts	32	32	32	32
Number of pupils	447,763	447,763	447,763	447,763

Source: 1991-92 District and School Expenditure Data, General Education File, New York City Public Schools

TABLE 88

DISTRICT-LEVEL EXPENDITURES PER PUPIL FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS GENERAL EDUCATION 1991-92

	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil	GE Teachers' Salary Expenditures Per Pupil	GE Total School Allocation Expenditures Per Pupil
Mean	$2,510	$352	$2,180	$2,862
Maximum	$3,101	$460	$2,662	$3,472
Minimum	$1,928	$244	$1,737	$2,172
Range	$1,174	$216	$924	$1,300
Standard deviation	$202.5	$53.2	$176.0	$232.4
Coefficient of variation	0.08	0.15	0.08	0.08
Number of districts	32	32	32	32
Number of pupils	172,489	172,489	172,489	172,489

Source: 1991-92 District and School Expenditure Data, General Education File, New York City Public Schools

TABLE 89

DISTRICT-LEVEL EXPENDITURES PER PUPIL FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS, GENERAL EDUCATION, 1991-92

District	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil	GE Teachers' Salary School Expenditures Per Pupil	GE Total School Allocation Expenditures Per Pupil
1	$2,110	$429	$1,816	$2,539
2	$2,104	$296	$1,842	$2,400
3	$2,227	$359	$1,973	$2,586
4	$2,047	$307	$1,882	$2,354
5	$2,006	$331	$1,742	$2,338
6	$1,808	$364	$1,522	$2,172
7	$2,031	$284	$1,816	$2,315
8	$1,983	$328	$1,719	$2,312
9	$1,924	$324	$1,686	$2,248
10	$1,996	$371	$1,702	$2,367
11	$2,105	$325	$1,814	$2,429
12	$1,880	$406	$1,600	$2,286
13	$1,935	$343	$1,723	$2,278
14	$1,955	$363	$1,720	$2,318
15	$2,237	$303	$1,938	$2,540
16	$1,838	$308	$1,636	$2,146
17	$2,015	$310	$1,644	$2,325
18	$2,074	$287	$1,709	$2,362
19	$1,960	$323	$1,686	$2,283
20	$2,122	$372	$1,845	$2,494
21	$2,004	$354	$1,769	$2,357
22	$2,044	$268	$1,732	$2,311
23	$1,874	$328	$1,727	$2,203
24	$2,064	$314	$1,661	$2,377
25	$2,024	$328	$1,724	$2,352
26	$2,082	$341	$1,825	$2,423
27	$2,014	$338	$1,670	$2,352
28	$1,930	$313	$1,684	$2,243
29	$2,137	$315	$1,860	$2,451
30	$2,010	$316	$1,714	$2,326
31	$2,202	$341	$1,965	$2,544
32	$1,950	$357	$1,677	$2,308

For definitions and sources, see Table 87.

TABLE 90

DISTRICT-LEVEL EXPENDITURES PER PUPIL FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS, GENERAL EDUCATION, 1991-92

District	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil	GE Teachers' Salary School Expenditures Per Pupil	GE Total School Allocation Expenditures Per Pupil
1	$3,020	$444	$2,557	$3,464
2	$2,551	$282	$2,291	$2,833
3	$1,928	$244	$1,738	$2,172
4	$2,390	$271	$2,084	$2,660
5	$2,441	$278	$2,135	$2,719
6	$2,501	$387	$2,256	$2,889
7	$2,988	$322	$2,662	$3,310
8	$2,580	$460	$2,178	$3,039
9	$2,462	$349	$2,140	$2,811
10	$2,625	$428	$2,302	$3,053
11	$2,444	$333	$2,126	$2,777
12	$2,459	$437	$2,075	$2,896
13	$2,554	$402	$2,199	$2,956
14	$2,630	$455	$2,330	$3,086
15	$3,102	$371	$2,645	$3,472
16	$2,623	$432	$2,353	$3,056
17	$2,428	$341	$2,129	$2,769
18	$2,343	$380	$2,022	$2,722
19	$2,907	$379	$2,501	$3,285
20	$2,311	$277	$2,016	$2,588
21	$2,570	$324	$2,265	$2,894
22	$2,397	$306	$2,050	$2,703
23	$2,536	$429	$2,205	$2,964
24	$2,295	$336	$1,968	$2,630
25	$2,463	$377	$2,096	$2,839
26	$2,508	$301	$2,129	$2,809
27	$2,518	$339	$2,120	$2,857
28	$2,678	$339	$2,296	$3,018
29	$2,236	$304	$1,948	$2,540
30	$2,483	$330	$2,139	$2,813
31	$2,679	$368	$2,342	$3,047
32	$2,413	$347	$2,110	$2,761

For definitions and sources, see Table 88.

TABLE 91

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS
OF EXPENDITURES FOR SCHOOL ALLOCATIONS TO ELEMENTARY SCHOOLS WITH
PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE
1991-92

	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil	GE Teachers' Expenditures Per Pupil	GE Total School Expenditures Allocation Per Pupil
Regression coefficient	-278.0	39.2	-226.8	-239.0
Result of a 50 percentage point change in free lunch	-$139.0	$19.6	-$113.4	-$119.5
"High" poverty district	$1,976	$338	$1,707	$2,315
"Low" poverty district	$2,115	$319	$1,821	$2,434
Simple correlation	-.535	.246	-.422	-.463
Coefficient of determination	.286	.061	.178	.214
Number of pupils	447,763	447,763	447,763	447,763

Note: Mean value of free lunch (pupil weighted) is .628.
For explanation of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education Fil
and 1990-91 School Profiles, New York City Public Schools

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TABLE 92

RESULTS OF DISTRICT-LEVEL REGRESSION ANALYSIS OF EXPENDITURES FOR SCHOOL ALLOCATIONS TO MIDDLE/JUNIOR HIGH SCHOOLS WITH PER PUPIL WITH PERCENT FREE LUNCH AS INDEPENDENT VARIABLE

1991-92

	GE Direct School Allocation Expenditures Per Pupil	GE Indirect School Allocation Expenditures Per Pupil	GE Teachers' Expenditures Per Pupil	GE Total School Expenditures Allocation Per Pupil
Regression coefficient	260.5	181.4	290.1	442.0
Result of a 50 percentage point change in free lunch	$130.3	$90.7	$145.1	$221
"High" poverty district	$2,582	$402	$2,260	$2,984
"Low" poverty district	$2,451	$311	$2,115	$2,763
Simple correlation	.203	.539	.261	.301
Coefficient of determination	.041	.291	.068	.090
Number of pupils	172,489	172,489	172,489	172,489

Note: Mean value of free lunch (pupil weighted) is .524.
For explanation of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

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TABLE 93

SCHOOLS ELIMINATED FROM SCHOOL-LEVEL ANALYSIS: ACTUAL EXPENDITURE DATA

ELIMINATED ON BASIS OF DISTRICT COMMENTS

Borough	District	School
Manhattan	3	208
Manhattan	3	149
Manhattan	3	207
Manhattan	5	175
Manhattan	5	275
**Bronx	8	120
Brooklyn	13	046
Brooklyn	15	146
Queens	24	081

** This school was not on data file.

(Continued on next page)

Table 93 (continued)

ELIMINATED ON BASIS OF PER PUPIL TOTAL SPENDING OUTSIDE LIMITS
(greater than $3700 per pupil or less than $1000 per pupil)

Borough	District	School
Manhattan	1	025
Manhattan	1	061
Manhattan	3	076
Manhattan	3	113
Manhattan	3	191
Manhattan	4	050
Manhattan	4	013
Manhattan	4	206
Manhattan	5	010
Manhattan	6	252
Bronx	9	236
Bronx	12	098
Brooklyn	14	071
Brooklyn	14	319
Brooklyn	16	035
Queens	24	087
Staten Island	31	049

ELIMINATED ON BASIS OF ZERO STUDENT COUNT

Borough	District	School
Bronx	7	029
Bronx	9	073
Bronx	12	129
Queens	27	060

TABLE 94

SCHOOL-LEVEL DIFFERENCES PER PUPIL ACTUAL EXPENDITURES AND BUDGETED EXPENDITURES FOR ELEMENTARY SCHOOLS GENERAL EDUCATION 1991-92

	Difference Grand Total per Pupil	Difference Teachers per Pupil
Mean	$143	$29
Maximum	$1,386	$1,621
Minimum	-$1,905	-$1,991
Range	$3,291	$3,613
Standard deviation	$240.3	$224.4
Coefficient of variation	1.68	7.74
Number of schools	614	614
Number of pupils	441,341	441,341

Source: 1991-92 District and School Expenditure Data, General Education file

TABLE 95

SCHOOL-LEVEL DIFFERENCES PER PUPIL
ACTUAL EXPENDITURES AND BUDGETED EXPENDITURES
FOR MIDDLE/JUNIOR HIGH SCHOOLS
GENERAL EDUCATION
1991-92

	Difference Grand Total per Pupil	Difference Teachers per Pupil
Mean	$235	$94
Maximum	$1,052	$877
Minimum	-$729	-$500
Range	$1,781	$1,377
Standard deviation	$224.7	$202.7
Coefficient of variation	0.89	2.16
Number of schools	171	171
Number of pupils	168,791	168,791

Source: 1991-92 District and School Expenditure Data, General Education file

TABLE 96

RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS
BUDGETED AND ACTUAL PER PUPIL EXPENDITURES FOR GENERAL EDUCATION
ELEMENTARY SCHOOLS
DIFFERENCES IN TOTAL AND TEACHER SPENDING
EXPENDITURES AND BUDGETED SPENDING
1991-92

	Difference Total GE per Pupil	Difference Teacher GE per Pupil
Regression coefficient	-96.9	-82.9
Result of a 50 percentage point difference in free lunch	-$48.45	-$41.45
"High" poverty district	$126.3	$14.4
"Low" poverty district	$174.7	$55.8
Simple correleation	-.106	-.097
Coefficient of determination	.011	.009
Number of pupils	440,504	440,504

Note: Mean value of free lunch (pupil weighted) is 62.6. For explantion of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 97

RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS
BUDGETED AND ACTUAL PER PUPIL EXPENDITURES FOR GENERAL EDUCATION
MIDDLE/JUNIOR HIGH SCHOOLS
DIFFERENCES IN TOTAL AND TEACHER SPENDING
EXPENDITURES AND BUDGETED SPENDING
1991-92

	Difference Total GE per Pupil	Difference Teacher GE per Pupil
Regression coefficient	15.8	-7.7
Result of a 50 percentage point difference in free lunch	$7.9	-$3.85
"High" poverty district	$244.7	$95.4
"Low" poverty district	$236.8	$99.3
Simple correleation	.015	-.008
Coefficient of determination	.0002	.00006
Number of pupils	167,772	167,772

Note: Mean value of free lunch (pupil weighted) is 52.4. For explantion of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 98

SCHOOL-LEVEL SPENDING PER PUPIL
ACTUAL EXPENDITURES
FOR ELEMENTARY SCHOOLS
GENERAL EDUCATION
1991-92

	Grand Total Spending per Pupil	Teacher Spending per Pupil
Mean	$2,347	$1,744
Maximum	$3,614	$3,285
Minimum	$1,667	$1,184
Range	$1,947	$2,101
Standard deviation	$243.0	$213.2
Coefficient of variation	0.10	0.12
Number of schools	614	618
Number of pupils	441,341	443,949

Source: 1991-92 District and School Expenditure Data, General Education file

TABLE 99

RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS
ACTUAL PER PUPIL EXPENDITURES FOR GENERAL EDUCATION
ELEMENTARY SCHOOLS
TOTAL AND TEACHER SPENDING
1991-92

	Total GE Expend. per Pupil	Teacher GE Expend. per Pupil
Regression coefficient	-150.6	-143.7
Result of a 50 percentage point difference in free lunch	-$75.3	-$71.85
"High" poverty district	$2,320.8	$1,718.7
"Low" poverty district	$2,396.1	$1,790.6
Simple correleation	-.163	-.177
Coefficient of determination	.026	.031
Number of pupils	440,504	443,112

Note: Mean value of free lunch (pupil weighted) is 62.6. For explantion of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

TABLE 100

SCHOOL-LEVEL SPENDING PER PUPIL
ACTUAL EXPENDITURES
FOR MIDDLE/JUNIOR HIGH SCHOOLS
GENERAL EDUCATION
1991-92

	Grand Total Spending per Pupil	Teacher Spending per Pupil
Mean	$2,850	$2,183
Maximum	$3,696	$3,494
Minimum	$1,974	$1,591
Range	$1,721	$1,903
Standard deviation	$327.2	$264.6
Coefficient of variation	0.11	0.12
Number of schools	171	175
Number of pupils	168,791	171,265

Source: 1991-92 District and School Expenditure Data, General Education file

TABLE 101

RESULTS OF SCHOOL-LEVEL REGRESSION ANALYSIS
ACTUAL PER PUPIL EXPENDITURES FOR GENERAL EDUCATION
MIDDLE/JUNIOR HIGH SCHOOLS
TOTAL AND TEACHER SPENDING
1991-92

	Total GE Expend. per Pupil	Teacher GE Expend. per Pupil
Regression coefficient	362.0	292.2
Result of a 50 percentage point difference in free lunch	$181.0	$146.1
"High" poverty district	$2,952.5	$2,265.1
"Low" poverty district	$2,771.5	$2,119.0
Simple correleation	.227	.227
Coefficient of determination	.052	.052
Number of pupils	167,722	170,196

Note: Mean value of free lunch (pupil weighted) is 52.4. For explantion of terms, see text.

Source: 1991-92 District and School Expenditure Data, General Education File, and 1990-91 School Profiles, New York City Public Schools

SUMMARY

EPP Study of how New York City Community School Districts Allocate and Spend funds for Elementary and Middle Schools

I. Purpose of the Study

One primary goal of the Educational Priorities Panel (EPP) is to assure that, to the greatest extent possible, funds assigned to the New York City public schools flow to the classroom. Another major commitment is to promote an equitable distribution of resources among all the school sites within the city. When the central Board of Education announced plans to collect data on how each of the 32 community school districts planned to allocate its funds to the school sites within it, the EPP saw the new information as an opportunity to study district decision making and to find out more about how funds are distributed among community school districts and how resources are distributed to individual schools within the system.

With a grant from the Aaron Diamond Foundation, EPP asked Drs. Robert Berne and Leanna Stiefel of New York University's Wagner Graduate School of Public Service to collaborate with the Panel on a study of how funds were budgeted and spent by the 32 community school districts in New York City. As Part I of the study, the EPP conducted a qualitative study of the budget process in ten selected community school districts to learn more about the decision making process at the local level. As Part II of the study, Drs. Berne and Stiefel undertook to obtain the data used in the Board of Education spending plans and to prepare a quantitative analysis of the 1991-1992 budget and expenditure data as supplied by the Board of Education.

To determine whether decentralization is more than a slogan and what role parents and community school board members play in the budget process, EPP's part of the study (Part I) focused on the following questions:

- Within the community school districts, who makes the major allocation decisions?
- What role in budget decision making is played by community school boards and parents?
- How were the published spending plan documents used by community school boards and parents and how can they be made more useful to these groups?

To determine whether funds for poor children are distributed at both the district and the school site level and to analyze differences in the way community school districts allocate and spend the funds they receive from the central Board of Education, Part II of the study focused on the following questions:

- What is the relationship between the level of funding and the degree of poverty both among the community school districts and among the school sites?

- How do the allocation practices within the 32 community school districts differ? Are there significant differences among the districts, and if so, are these differences related to the students' poverty level? Are there significant differences among districts in the proportion of district funds retained for district office use or left unallocated?

- Do actual expenditures reflect planned allocations? Are there significant differences within the community school districts between planned allocations and actual expenditures?

- What are the differences in the way funds supported by different revenue sources are apportioned ?

The first of the "Spending Plan" reports covered the 1991–1992 school year (as of January 30,1992) and was published in the Spring of 1992.[1] For the first time, a set of data was made available to the public that provided an overall picture of how resources in the New York public school system were allocated to the individual school–sites. For the first time, local community school districts were asked to account to the public for how they planned their allocations. For the first time, a standardized document was made available to community school members and parents to document distribution policies within their own districts.

II. Findings

Although different in tone and methodology, Parts I and II of the study present a picture of how budgeting is perceived in the local districts, how the new spending plans were perceived by board members and parents, and what the new data could tell us about the variations in allocation practice and the equity of planned expenditures within the districts. Here are some of the findings that respond to the questions raised by the studies:

Part I. Top–down Budgeting; Budget Planning within New York City Community School Districts

1. In the interviews conducted in ten selected districts, the EPP found that decision making on budget matters is highly centralized. Detailed allocations to the community school districts are issued each year by the central Office of Budget Operations and Review. Based on these allocations, basic budget decisions at the community school district level are made by the superintendents and their staffs. Top administrators meet with principals to determine budgets for individual schools. Principals have limited power to press for the special needs of individual schools.

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[1] New York City Public Schools, Joseph A. Fernandez, Chancellor, School Budgets, 1992.

2. Although all districts described a consultative budget process, community school board members and parents that were interviewed reported that they followed the lead of superintendents on budget matters. Parents and community members complained that the district budget hearings were often perfunctory, that they were not timed to permit meaningful parental input into the budget process.

3. The superintendents and business managers who were interviewed reported that they had little leeway for spending within general education budgets and even less for special education budgets which are limited by law and regulation. There is more room for innovation and flexibility in reimbursable budgets, and several administrators reported that they used these opportunities to meet specific local objectives and needs.

4. The spending plan documents proved to be hard for parents and board members to understand. It was difficult for parents to make the distinction between "budgeted" funds (those designated for the community school district by the central budget office) and "allocated funds" (those assigned to school sites by the district). Further, the central board bases its allocations on each district's average teacher salary, so that dollar allocations reflect only the average salary in the district and not individual salaries at the school site level. In schools where teacher turnover is high, most of the staff may consist of teachers with less seniority earning lower salaries so per pupil expenditures may be relatively low. Differentials in expenditures for teachers at the school site level would show up only in actual expenditure figures. Unfortunately, complete actual expenditure data were not available for analysis in Part II of this study, so only a limited comparison between planned and actual expenditures could be made.

5. Top-down Budgeting recommended that more training in the use and significance of the spending plan documents be offered. Although a few training sessions were given by Budget Office personnel, the Office of Parent Involvement and the City School Boards' Association did not vigorously promote training in the use of the reports for their members. In only one of the ten districts we selected were they used by the superintendent to inform the community. The potential of the spending plans was recognized by some board members and welcomed by some of the principals we interviewed. But in this first year, the published plans were not widely used in the decision -making process in the districts we visited.

6. Equity was not a major issue for the board members and parents interviewed at the district and school level; they were focused on the here and now of their own schools and districts. Similarly, in all but one of the districts studied, administrators did not list equity as among the express goals of the district. Administrators were more concerned than parents with the implications of comparative performance and practice among the 32 local districts. Some complained that their jobs would be made harder by publication of the budget data; others said the spending plan documents were redundant. A few welcomed the challenge to explain to their communities how local practice related to citywide averages.

Part II School and Community School District Budgets and Expenditures in New York City

The quantitative analysis of the spending plan data analyzes the results of allocations made by the central Board of Education budget office to the community school districts and by the 32 community school districts to the more than 800 elementary and middle/jr. high school sites. The findings of Part II of the study help to answer the above questions this way:

1. The 32 community school districts differ in their budget practices, indicating that, within narrow constraints, there is leeway to decide on the timing of allocations and on the split between allocations to schools or allocations to the district office or leaving sums unallocated:

- Although the amounts allocated at the community school district level do not vary widely, there is considerable difference in the amounts that are assigned promptly to individual schools, or to district offices, or left unallocated.

- As of January 30, 1992, the date of the data collection, districts with large numbers of poor children had assigned less per pupil for general education in individual schools, and more per pupil to district offices and/or the unallocated category.

2. The study reports that in general education budgets:

- Differences in dollars per pupil spending among individual schools are largely attributable to differences in average teacher salaries.

- Average teacher salaries are markedly lower in schools with high levels of poverty than in schools in other districts.

- There are more positions per pupil in high poverty districts where average teacher salaries are lower; teachers in high poverty districts have less seniority than those in other districts.

- Data on allocations to individual schools show that less money is allocated for general education in schools with larger numbers of poor children than in schools with fewer poor children. This means that salary relationships have greater impact than the allocation of positions in general education budgets.

3. The study examined budgets at the school site level to compare planned expenditures for general education for "direct" purposes and "indirect" educational purposes. The study defined "direct" purposes as expenditures for teachers, counseling, paraprofessionals, OTPS and other services directly related to student learning. As "indirect" purposes the authors listed administration, principals, ass't principals, school

guards, community relation programs etc. The study found that, at the school site level, poor districts tended to spend less for direct and more for indirect expenditures than richer districts.

4. When data for general education expenditures were separated to show planned expenditures for elementary schools, as distinct from middle/jr. high schools, it appeared that:

- More resources per pupil were assigned to middle/jr. high schools.

- The relationship between assigned resources and degree of poverty was different in elementary schools than in middle/ jr. high schools. In elementary schools, in schools with high levels of poverty, less money was budgeted for "direct" services than for indirect services, while in middle/jr.high schools, the poorer schools received more resources for all types of services.

- Despite the Board of Education's express concern for reducing class size and directing more resouces to early childhood education, elementary classrooms receive fewer resources for "direct " services than middle and junior high school classrooms.

5. Two factors were found to counterbalance the above findings that the system drives fewer resources toward high poverty schools than to low poverty schools:

- Federal and state-supported reimbursable programs which are expressly designed to serve poor children tend to direct more resources to schools where poverty was greatest. Federal and state competitive grants, however, do not. When total spending for general education and for reimbursable programs are combined, the relationship between poverty and spending reflects the impact of reimbursable funding; high poverty districts received more funds, had more positions per pupil and consequently larger budgets for teachers' salaries.

- In the assignment of staff positions to individual schools at the middle/jr high school level also tended to drive more resources to high poverty schools. On a per pupil basis, the study found that districts assigned more middle/jr. high school positions to those schools serving greater numbers of poor children and fewer positions to those with lower levels of poverty. In elementary schools, the same was true, but to a much less degree.

6. It was difficult to compare actual expenditures for all three budgets (general education, special education and reimbursable expenditures) for the 1991-92 school year with the planned allocations recorded in the spending plans because 1) an additional $30 million in funds was made available to school districts throughout the year and the data do not detail in what categories or what schools the supplemental funds were spent and 2) figures on actual expenditures for reimbursable programs were

considered incompatible with those that appear in the spending plans. Yet, on the basis of data for general expenditures only, the study found:

- Because funds were added by the central office during the 1991–1992 school year, actual expenditures were higher than planned expenditures in all but one district. The average difference between planned allocations and actual expenditures came to $57 per pupil.

- For general education budgets, the difference between planned and actual expenditures was greater in districts with high levels of poverty than in districts with lower levels of poverty. At the school level, this relationship applied to elementary schools, not to middle schools. In elementary schools actual per pupil expenditures for "direct" services and for teacher salaries all showed that less was spent in districts with high level of poverty than in districts with low levels of poverty .

III. Conclusions and recommendations

Top–down Budgeting found a highly centralized system of budgeting at the community school district level. It recommended that a more inclusive decision–making process be developed. It recommended that more power over the use of resources be delegated to the school site. It suggested that consultation with parents on budget issues be timed to relate more realistically to the budget calendar.

Top–down Budgeting suggested that actual expenditure figures for the previous year be included along with data on planned expenditures for the coming year. Parents and citizens are entitled to know, not only how budgets were planned for their individual schools, but how funds were actually spent. Berne and Stiefel suggested that actual salaries, rather than average teacher salaries, be included in future editions of the spending plan report. They made additional suggestions for clarifying pupil counts and resolving data problems.

The Berne and Stiefel study implied that district administrators have discretion in the scheduling of allocations and in allocating resources to the district office. It raised questions about resource distribution to individual schools within the city, especially about the effect of the concentration of lowered–salaried professionals in high poverty areas. It flagged a discrepancy between resources available to poor children in elementary schools compared to resources available to children in middle schools.

Both studies found that the spending plan data represented an important advance toward more open and informative budgeting within the New York City school system. Both studies made suggestions for improving the spending plan reports and identified technical problems that should be corrected in future editions of the report.